

T H E
D I S E A S E
O F
L O N D O N :
O R
A N E W D I S C O V E R Y
O f t h e
S C O R V E Y .
C o m p r i z i n g

The Nature, Manifold Differences, various Causes, Signs, Prognostics, Chronology, and several Methods of Curing the said DISEASE by Remedies, both *Galenical*, and *Chymical*, together with Anatomical Observations, and Discourses on *Convulsions*, *Palsies*, *Apoplexies*, *Rheumatisms*, *Gouts*, *Malignant Fevers*, and *Small Pox*, with their several Methods of Cure and Remedies. Likewise particular Observations on most of the Fore-mentioned Diseases.

By GIDEON HARVEY,

M. D. Physician in Ordinary to His Majesty,
and in the Time of the Rebellion, Fellow of the
College of Physicians at the *Hague*.

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Thom. Sumner





TO THE MOST
M I G H T Y,
AND MOST
INVINCIBLE MONARCH,
Charles II.
KING of *Great BRITAIN,*
France, and Ireland.

WHen your People, Great
SIR, had for many
Years been Afflicted
with Maniacisms, and Fascina-
ted Distempers of their Minds,
in a moment You miraculously
Cured them upon Your Blessed
A 2 Re-

The Epistle

Restauration; a good *Crisis*, whereof not the Influence of the *Stars*, but of *Divine Providence* was the Primar Efficient. The Diseases of their Estates were no less Great and Dangerous, some had Lost all, others had Little left, to these likewise your Unparallel Justice was a Sovereign Remedy, by Restoring to every one what was his just Right. Moreover that their Lives might be Præserved from the pernicious Attempts of Empirics, You have Re-established a College of Experienced *Physicians*, and to these your Royal Laboratory sheweth out of what Materials, and in what Manner
the

Dedictory.

the best Remedies are to be
Præpared; So, as You are the
Greatest KING, You are the
greatest *Physician*, whence I have
præsumed to lay this Treatise at
the Feet of Your most Gracious
Majesty, humbly craving Your
Protection against the *Scorvey*
of this Age, and imploring
Your Royal Clemency for a
Pardon for this Address, am
in all Duty bound to Acknow-
ledg my self,

The most Humble,

most Obedient, and

Meaneſt of Your Ma^{ty}

jeſties Subjects,

Harvey.

the first of these are to be
seen in the fact that you are the
only one who has the
power to make me have
any more of these
troubles. You are the
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make me have any more
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THE PRÆFACE.

IT is Observable, that the First Solid Foundation of Physick was laid by the Great Architect of that Art Hippocrates, in an Isle called Coos; and it is no less Remarkable, that the truest Super-structure was made on it, in this Island, by the Famed College of Physicians of London; It was a Member of that Society, Doctor William Harvey, of Immortal Memory, that had laid another Basis, by Detecting the Circulation of the Blood, for which this Britain may as justly Merit the Title of Divine, as the other Coos. The Rubbish that was cast about it by Parisanus, Leighnerus, and others to Obscure it, tended to render it more firm; notwithstanding, this was so smoothly removed by that Incomparable Physician

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sician, Sir George Ent, the now President of the College, in his Apology, that all Universities did then adjudge those void of Apprehension, that did not readily Embrace that Principle, and that it was Impossible, for any man to Arrive to be a Physician without the knowledg of it.

For many Ages the World was Ignorant, whence the superfluous Moisture proceeded, which we hourly spit out, until the out-let, viz. The Ductus Salivales were discovered by the Learned Doctor Wharton, a Fellow of the College; and though it was generally believed, nothing could be further declared, touching the structure of the Liver, yet so Elegant a description of its most Intime parts, and dissemination of its Vessels, Cholidochus, and a very exact pursuit of the Lymphaducts was made by the most Accomplisht Doctor Glisson (the late Præsident) in his Anatomia Hepatis, that in a manner it appeared, as if nothing had been solidly Written of it by any before him.

*That some Distempers had escaped the Observation of the Græcian and Arabian Physicians, was evidenced by the eminently Learned Doctor Bates, Doctor Glisson, and Doctor Regemorter, Collegues, in that excellent Treatise de Rachitide. In all my Travels, I had
never*

The Praeface.

never the good Fortune to be particularly acquainted with a Person equal in Litterature, Experience and Observation with Doctor Bates; I must confess, I went ever from him more knowing, than I was before.

The Pharmacopœa compiled by the whole Body of this Apollinean Society, doth justly Merit the Character of a most Elaborate work, from those, that shall compare the several compositions in it with their Original, where the amendments of Omitting of Superfluons, incongruous, or Asymmetrous ingredients, and substituting of necessary and proportionate Correctives, are to every Eye very Obvious; and their Care, that those Medicines be Neatly, and Artificially prepared by the Apothecaries of London, hath proved so successful, that Travellers are Obligated to Attest, that Pharmacy is in no Forreign part so much Improved, as it is here; and therefore why is not the London Theriaca Andromachi equal to Venice Treacle, which latter oft times consists only of the two third parts of the Ingredients, and the better half of them Garbles? Or why should the Confectio Alkermes of Montpellier exceed that of London? I must confess our Apothecaries set an higher Price upon their Medicines and their Labour too, than the French, and not without Reason; for you must agree to me,
that

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that an English Apothecary, who puts on three pair of sleeves a Week, and comes Neatly about your Posteriors, doth better deserve a Shilling for giving you a Glyster, than a French Apothecary wearing his Half-shirt a Month, Two-pence. That by the way, but still I must say, that Medicines are no where so Neatly, so Honestly, and so Skilfully prepared as here at London, and in that particular you may easily believe me a Judge competent enough, since when I was a Student in Physick, Lodging purposely at an Apothecaries House, I have spent many a half hour at the Pestil and Mortar, and did arrive to that Proficiency, that I could pretend to dispence Methridate, or make up a Paracelsus Emplaster, with any of the Trade.

It is not so much in Pharmacy, as Chyrurgery, the French claim the Superlative; It is confessed, a French-Man shall very dexterously take off six Legs or Arms, to One of an English Surgeon; he shall make an Incision with his Scissors, as far as he can well reach with his fistul Probe, let it go as far as it will between the Muscles, or the Cutis and the Membrana Carnosa, when an English Surgeon shall only clap in a Dorvil into the Orifice: He shall force in two of his Fingers into a Wound as far as he can possibly reach, though the Orifice will scarce admit a Probe with-

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without great pain; whereas one of our Surgeons shall gently stroak the coagulated Blood, or lodged Matter towards the Orifice. This is the Difference, but the Issue is, that of those six Members Amputated, four or five of the Patients shall retire into the other World, whereas on the other side probably five among the six shall be preserved with their Legs on. Touching those large Incisions, it's observable, that in making them they oft cut a Vein or Artery asunder, and cause Mortal Hemorrhages, or at least oft create incurable Ulcers; whereas the other without putting the Patient to that Extremity of pain, or danger, shall safely and easily Cure him in a few dayes. Of how dangerous a Consequence the forcing of Fingers into Wounds doth oft prove, is abundantly Evident to all Experienced Surgeons. It must be granted, that in some Cases Members cannot be preserved, likewise Incisions may be necessary, where Matter is suspected to lodge remote; or a Finger sometimes may be gently slid into a Wound, to clear it of coagulated Blood or Matter, that's lodg'd near the Orifice; but to practice Surgery as I have seen it in most parts of France (excepting only the Charity Hospital at Paris, where in my younger Years, for to acquire a competent knowledge in that part of Physick, I had leave to dress
for

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for some Months) is not comparable to the Practice of English Surgeons; so that considering the French Practice I have oft admired, that in some Countries, you shall scarce see a Person of Quality; but must have his French Surgeon at his Elbow, as if no Body could Cure a Clap but a French Surgeon; for I cannot imagine what other Business they can have for him, now Duëls are grown so much out of Fashion. That I do not Write this out of a Prajudice, but from a real Truth, you may apprehend from my particular Humour, which sometimes inclines me, to be extremely pleased with French Company. I must now return to give you likewise an account of the Practice of Physick, wherein the Fellows of the College have proved so wonderfully Successful, that their Methods of Curing the most stubborn of Diseases, may serve for a fit Pattern to all the World to Practice by, and I cannot deny, but in many Cases it hath proved so to me, which to acknowledg is the sole occasion of my Introducing this Discourse. But possibly it may appear strange, that of a Society, whose Fame is spread as far as the Art of Physick it self, I should not endeavor to be a Member. In relation to that particular, I am Obliged to give you Satisfaction; it is many Years past, (viz. In the time of Rebellion)

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bellion) when I first arrived at London, to initiate my Practice in Physick, at which time I ought to have entred into the College, but finding, that the Humour of some was much towards Preaching, Praying, and all the Knacks of Phanaticism, others driving a way quite contrary; in fine the difference was such, that I concluded I should scarce make up my account among them, and therefore judged it more Expedient, to pursue my Advantages abroad; but now finding the College Re-establisht, and Revested with their Ancient Lustre, and many to have got in, who when I begun to Practice, were not come from the Grammar School, if I should come in I must give Precedency to those Youngsters, which I imagine I shall never do. My next Affair is to praacquaint you with the Design of this Treatise; I do assure you, I have Inserted nothing in it, but what I have found to be true, and have used my utmost Endeavours to Trac all the Steps of this General Disease; I have Imparted to you some Secrets, which when you know, and have Tried, you will have Reason to believe, I had no other Drift in Divulging this Octavo, than sincerely to serve the Publick.

Farewel.

June, 10. 1675.
Hatton Garden.

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THE
DISEASE
OF
LONDON.

CHAP. I.

Containing
A Præmissory Discourse of the
SCORVEY.

1. *The Design of the Treatise.* 2. *The Synonyma's and Derivation of the Scorvey.* 3. *Whether the Scorvey was known to Hippocrates or Galen? that it's contagious and hereditary.* 4. *That the Scorvey is of about 200 years standing.*

I Will not resume, what by others hath so oft been chaw'd upon, and that take for a reason, if I do not tell you a Story out of *Engalen*, *Solomon Albertus*, or *Wierus*, a sort of people, that from one another re-col-
B lected

lected a most prodigal number of Scorbutick Symptoms, by the same Rule of Arithmetical Progression, *Galien* made use of in mustering his Centuries of Pulses, an impertinent variety, more imaginary, than perceptible by the subtillest Aranean Tact. By what I here condemn, you may conjecture, I pretend to divulge something particular, in such terms, as shall as little tire you in the reading, as me in writing. To commence my Discourse from the Description of my Subject, seemeth most expedient, wherein an exactness ought to be aimed at, exceeding what hitherto hath been heeded, which may oblige such, as when meeting with a distemper, they are not well acquainted with, are compelled to tell the Patient, it is the *Scorvey*.

§ 2. *Scorbutus* and *Scorvey* (quasi *Scorbey*) are words bastardized from *Scorbeck*, a Westphalian Primitive, denoting a Hoarse Throat, probably a Symptom, that antiently attended that Disease, and in these dayes is now and then observed a Concomitant,

tant, especially among the Danes, where it passed by the name of *Scher-mund*; who moreover being oft rack'd with tearing pains in their legs, gave them the name of *Schor-bein*, or Tear-leg. By the way, I must here take notice of a vulgar error, in the Orthography of the word *Scurvey*, which ought to be written *Scorvey*, as being derived from the word *Scorbeck*. The Low Dutch discerning, it oft exerciseth its fury on the Guts, by causing insufferable Gripes, chuse to call it *Scheurbuyck* or *Tear-belly*; also *de Blawe Shuit*, from those blew spots, that haunt Scorbutick Legs. From the stink of Breath and foulness of the Gums, the Italians name it *La Marcia di Bocca*, or *Scornobocca*, implying a corruption of the mouth. But if it be proper to derive the denomination of a Disease from its chief Symptoms, the word *Gingipedinum* (*crassa & pingui Minerva*) expresseth its nature more amply, declaring it most incommodious (*gingivis & pedibus*) to the gums and legs; and it may be conjectured, this kind of Nomenclature was twisted together out of those two Antick

The Disease of London, or

words latinized *σομαχική* and *σκελοτύρβη*, the former denoting a foulness of mouth, from *σῆμα* & *κακία*; or a foul mouth, from *σῶμα κακόν*, the latter being expounded a Disease of the legs, as may be inferred from *Pliny Histor. Natur. lib. 35. cap. 3. In Germania trans Rhenum castris a Germanico Cæsare promotis, maritimo tractu fons erat aquæ dulcis solus, qua pota intra biennium dentes deciderent, compagesque in genibus solverentur, stomacacen Medici vocabant, & Scelotyrben: i. e. The Campagne being removed by Germanicus Cæsar to the other side of the Rhyne in Germany, there was onely one Fountain of sweet water, in a tract near the Sea, whereof drinking, in two years time their teeth would fall out, and the compo-
sure of their knees would be quite relaxed; the Physicians called it Stomacace and Scelotyrbe.*

§ 3. The use of these words seemeth to be of a far ancients date, than *Pliny's* age, since *Strabo* a Subject of *Augustus Cæsar*, in the Sixth Book of his Geography, about the
end,

end , relates the Roman Army , that was transported into *Arabia*, to be infested with a Disease called *Stomacace* and *Scelotyrbe*. *Galen* also in that Book *de Definitionibus Medicis*, makes mention of a *Scelotyrbe*. But not onely, whether those Maladies implied by these two obsolete words, but whether those great Spleens described by *Hippocrates de Morbis Intern. 2. Præd. 2. Prognost.* the Black Jaundice, the *Ileos Hematites*, or the Black *Vitiligo* (being a deformity of the Skin, haunted with large dusky spots) be not the same Disease , Modern Physicians term the *Scorvey*, hath been controverted by most, that have handled this Subject. That each of these have a resemblance in their Causes and Symptoms to the *Scorvey*, needs no debate ; for according to *Hippocrates* in the præcedent Citation, in those great Spleens *The Belly is puffed up, afterward the Spleen doth also swell, and is hard, and acute pains happen to the Spleen, the colour is also changed and looks black, pale, and like a Pomegranate shell ; and an ill smell cometh out of their mouth, and the gums scent ill and separate from*

*the teeth; and on the legs there break out Ulcers, also nocturnal Pustuls; and the parts are extenuated, and their ordure is not evacuated. The Itios Hematites is also decipher'd with features not unlike the former: The Disease, saith Hippocrates, beginneth about the Autumn, and therein these things happen: There commeth an ill scent out of the mouth from the teeth, and the gums separate from them; and blood floweth out of the nostrills; and sometimes ulcers break out on their legs; and other things appear, and the colour groweth black, and the skin thin. The curiosity prædominating so much among Authors, touching the identity of primæval and subsequent Diseases, might be construed very superfluous; for the result, whether it be so or not, contributeth no more light to the scrutiny of the Scorvey, than a Candle to the Sun at Noon-day; though perchance *exercitii gratia*, and for reputation of being versed in Antick Lectures, it may be permitted to be ventilated. The opinion of the major part of the learned, infers from the near alliance of Sym-*

ptoms,

ptoms, the *Great Spleens* of *Hippocrates* to be the *Scorvey*; and some others by the same reason are convinced, the *Black Jaundice*, the *Ileos Haematites* and *Black Vitiligo*, are no other. If this inference be received, *Hypochondriack Melancholy*, *Hysterick Passion*, *Quartan Ague*, and most other *Splenetick Maladies*, may be reduced as *Species* to the *Gender* of the *Scorvey*. But upon a strict survey your æstimate will conclude, that the distinction of Diseases doth not depend so much on common accidents, as properties; or to speak physically, on *Pathognomonics*, derived from a *Specifick* qualification, in their *Causes*, *Parts affected*, and *Symptoms*. Thus the proegumenal cause of the *Scorvey*, though its vulgarly attributed to *Melancholy*, or rather *Salt vitiated or degenerated* to a *præternatural*, and in that qualification may be a common parent to this, the *Great Spleens*, *Black Jaundice*, and the rest; yet the more nice insinuation of others hath detected the *Salts* of the *Blood* so specifically receded from their natural Constitution in the *Scor-*

vey, and to have indued such peregrine qualities, that they are not capable to give birth to any other Disease than this. Moreover, by most the part affected and harth of the præalleged distempers, are determined unically the Spleen; in the Scorvey the Stomach (by some the *Pancreas*) the Spleen and Liver; and some do also accuse the brain, though *per dente-ropathiam*. Among the Symptoms the difference is most perspicuous, the exufflation of the Spleen is not alwayes discovered in the Scorvey, though in great Spleens never absent: In the *Ileos Hamatites* there is loss of blood by Stool, attended with tearing Gripes; which in this distemper is not assumed for a Pathognomonic. The Scorvey: is particularly malignant, because it is contagious, and so radicated, that for some months, and frequently years, it doth prædominate over the most potent of Medicines; and Infants oft bringing Scorbutick Seminaries with them into the world, speak it hæreditary; insomuch that on some Families the Scorvey hath been intailed with their Estates.

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These Prædicates certainly are not convertible with the fore-mentioned Diseases, and therefore ought not so rashly to be pronounced the Scorvey; which moreover is *Endemick*, the others *Epidemick* and *Pandemick*. Thus far no sensible error can be incurred, if upon comprise of the whole, these Diseases are conceded to be *Scorbutick*, in the same terms, as one may aptly explain a *Pleurisie*, an *Empyema*, an *Inveterate Cough*, and many other *Pulmonic Diseases*, *Asthmatic*, but not an *Asthma*; unless derived from *Saline Scorbutic Procatartick* and *Proegumenal* Causes.

§ 4. The *Scorvey*, in respect of its primar appearance, seems to bear no certainty in Chronology, since some describe it a distemper, that for some Ages hath harrassed the crazy inhabitants of the world; others will not allow it a Disease of longer date, than Authors of the last Century record its first budding among the Danes, Saxons, and Westphalians; which is within the time of Two hundred years at most. This latter sentiment is easily
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supported by this Argument ; *viz.* No Disease described by any of the Greek, Latine, or Arabian Physicians, doth exactly quadrate in Parts affected, Causes, and Symptoms with this Northern Scorvey ; and therefore may be inferred a new up-start Disease : especially that sort of Scorvey, which in my *Little Venus* I term *Epidemick*. Probably an objection may be offer'd, that since those Procatartic and Proegumenal Causes, had their being many Ages past, and consequently an influence on humane Bodies, they must necessarily (according to that trite Axiome, *Posita causa ponitur effectus*) have constituted their effect, *viz.* the Scorvey. To this is replied, History maketh no report of those occasions, that are impowered to produce this Malady. The Gracians, among whom those great Spleens of *Hippocrates*, being nearest of kin to the Scorvey, were so popular, lived in a benign air, and were constantly imployed in Warlick Exercises, whereby they were diverted from Melancholy, or other dull Passions, from Excess of Sleep or Sloath,

Sloath, and other inconveniences: so that those External Causes, that now concur in the production of the Scorvey, had no prævalence on them; and therefore improbable, our Distemper should have been engender'd then, or any time before. But waving other Causes, and considering only, it is an *Endemick* Disease, which hath its chief dependance on the Air, and particular disposition of the Clime, wherein alterations happen by evaporations from Sea or Earth, and Cœlestial Irradiations, which being so various and fræquent, it's no wonder, if the Scorvey be a recent production, or if every moneth or year Diseases of new aspects emerge.

C H A P. II.

Of the Mouth-Scorvey.

- I *The general kinds of the Scorvey, and what the Mouth-Scorvey is; the degrees of the Mouth-Scorvey.*
2. *That little hard Swellings of the Mouth and a Ranula, are Scorbutick.*

tick. 3. *That a vagous recurrent Tooth-ache is Scorbutick.* 4. *What a Scorbutick Thrush is.* 5. *The variation of the colour of the Gums in the Scorvey.* 6. *That a Stinking Breath is Scorbutick.* 7. *That small Fistula's in the Angles of the Mouth and Root of the Gums are Scorbutick.*

INto two great branches the *Scorvey* seems to be divaricated, namely a *foul Scorbutick Mouth*, or rather the *Mouth-Scorvey*, and *Scorbutick Legs*, or *Leg-Scorvey*; to which very aptly a third may be added, to wit the *Joynt-Scorvey*. The former consists of Swelled, Laxe, Spungy, Discoloured, sore Gums, loose Teeth, that in process of time do inevitably rot or cariate, and a stinking Breath; which as they ascend through various degrees to an extremity, do render the disease very incommodious, having observed the tumefaction of the Gums in some so luxuriant, as to obstruct the Lips in closing, appearing more like a *Fungus* grown to the Jaw, then Gums; on the contrary in others

thers, the Gums have been intirely corroded away, so as the *γυμφοις*, or juncture of the Teeth, and Jaw, might have been evidently discerned; and you may receive it for a truth, that the corrosion was continued with that rapid violence, in the Lips of a certain Scorbutick Dutchman, who for cure was admitted into the Hospital at *Leyden*, that being quite devoured, the Teeth were left bare, and exposed to the Air: wherefore note, that the first degree of a foul or putrid Mouth is a swelling of the Gums, through a thin serous or ichorous blood, soon after disposed to be pressed out of its bounds, with the least touch of a Finger, insomuch that it's fræquently observed, that Scorbuticks biting a peice of bread, the remainder in their hands will appear all bloody about the edges: Hereupon the Gums fissure or cleave, afterwards changing into phagedænic ulcers, which not seldom are succeeded by malignant cancerous ulcers, threatning an extream deformity and devoration of all the circumjacent parts.

2. More

§ 2. More than once I have given advice for little hard unæqual swellings about the inside of the Lips, sometimes under the Tongue, of a livid, or not infrequently of an ash colour and dolorous. These by Chyrurgions are termed Cancers of the Mouth, and indeed are little less than Cancerous, and consequently Scorbutick. Neither would I have you judge it a Paradox, if I assert an Endemic Cancer in whatsoever part, to be an extream degree of a *Scorvey*; as hereafter may be more plainly repræsented. Of the nature of the præmised Cancers in the Mouth, doth participate a *Ranula*, a Tubercle under the Tongue, so called, because being an impediment to the free motion of the Tongue, in pronouncing words, that contain the Liquids *L* or *R*, it occasions them to sound frog-like. The Cure hereof is vsually attempted by Astringents and Acids, as Oyl of Vitriol and others, whence seldom or never a success being answered to the intention of the Chyrurgion, converts his hopes to the sharp Steel, or the Fire. But were it
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supposed scorbutick, as many other signs accompanying, do certainly evince it to be, might infallibly perform the Cure by a Scorbutic To-pick.

§ 3. A vagous re-current Tooth-ach, especially in Women, doth often act a part in the *Syndrome* of a *Mouth-Scorvey*, which in distinction to the ordinary Tooth-ach, hath concomitant a very grating pain, with a violent salivation of thin saline Rheum; and as it is that, which for Cure hath been an *Opprobrium Medicorum*, for their frustraneous applications, so the most facile and indubious method of solag-ing this pain by Antiscorbuticks, is an argument, there hath been a Hallucination, in discerning the true cause of it.

§ 4. *Grandines*, or little whitish hard swellings, of the bigness of a Radish seed, with a small perforation in the middle, and running about the Tongue, Gums, Palate, and inside of the Cheeks, is a Scorbutick Thrush, and cured onely by Antiscorbuticks.

And

And those that have been curious Observers in their practice, can attest, there is a periodical swelling of the *Tonsils* (or Almonds under the Ears) and a relaxation of the *Uvula* and Palat, which must be accounted amongst the Diagnosticks of a *Month-Scorvey*; and such being render'd infinitely worse by the use of ordinary astringents, I have cured with a Gargarism of *Betony*, *sage* and *Scorvey-grass*, Elder and Rosemary-flowers, and Nettle-seeds, boyl'd in white Wine and Water, with a few drops of spirit of *Sal-armoniac*, instilled into the decoction; but not without assistance of internal Medicines.

§ 5. The discoloration of the Gums in a Scorbutick Mouth first appears in a deep red, afterwards in a spotted yellow, then dusky and leadish, and at last a cadaverous pale, or a cancerous black. The Veins about the Gums, under the Tongue, and the inside of the Lips, shew unæqual, swell'd and ill-colour'd. The foreness of the Gums feels sometimes burning, or as if prick'd with Needles; other

other times the pain lies deep about the *Periostium*, or Membrane of the Jaw, not unlike the Tooth-ach.

§ 6. Among the Pathognomonics of a *Mouth-Scorvey*, none is more certainly concomitant than a Stinking Breath; insomuch that it is beyond all contradiction, where there is a continual stink of Breath, (evident causes, as Ulcers of the Mouth, Throat and Lungs always excepted) there is a confirmed, or at least a growing *Scorvey*: and among all those Scorbuticks I ever was concerned with in relation to their cure, I never found that symptom absent; which if by the course of some years it be established in a deep radication, is refractory to all cure; if recent, all hope is reposed in a strict Scorbutick method. And for this so ungrateful symptom, the sole Specifick is the Urinous Spirit of *sal Armoniack*. Now upon the Assumption, that the *Scorvey* is an *Endemick* Malady to our Island, you must suppose a stinking Breath very popular, which indeed will not be disputed by one, that possesses the right use

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of

of his Nose; and those that are exquisitely sensible in that Organ, shall tell you, that the Cabins of Ships expire a stronger Air of Scorbutick stinking Breaths, than of Pitch or Tar.

§ 7. This Chapter we will limit with the subnexion of another Scorbutick Symptom, not much receding from a stinking Breath, *viz.* *Fistuls* in the Angles of the Mouth, and Root of the Gums, which being squeezed three or four times a day, render a very putrid matter, the spring whereof is ordinarily deprehended in a Scorbutick small Glandul.

CHAP. III.

Of the Leg-Scorvey.

1. *A Description of the Leg-Scorvey.*
2. *A more ample Declaration of its Symptoms.*
3. *Of Scorbutick Ulcers.*
4. *Of Scorbutick Leg-pains.*
5. *Of Varicous Legs.*

§ 1. **T**He *Scorvey* particularly exerting its enmity on parts so distant as the Mouth and Legs, speaks

it a Disease, requiring a more distinct Consideration; and therefore as in the former, so in this latter is designed to give you a very articulate Description: but observe by the way, that a lassitude and feebleness of the Knees is common also to a *Mouth-Scorvey*.

The *Leg-Scorvey* comprehends a great lassitude and weakness of the Knees and Ankles, spots and blotches of several figures and colours on the Shins, and particularly just below the Knee, and also near the Ankles, Pustuls, uneven Tumours and Tubercles of Purple Variegated Red. Oedematous Legs, with thick, hard, callous, livid, or sometimes brown red Skin about the Ankle, ulcers on the Shin, and near the Ankle, pains of the Knees, likewise deep pains along the Shin-bone, continuing all day, but raging most in the night, are all frequent concomitants of the *Leg-Scorvey*.

§ 2. The feebleness of the Knees and Ankles coming gradually upon you, without any evident præceding Disease, or any suddain alteration of looks, or habit of body; is an *Item*

sufficient to inform you what's at hand : Namely , Spots first red , and then yellow , livid , and at last of an ash colour ; upon this expect blotches along the side of your Legs , appearing first reddish , then yellowish very like an *Erysipelas* , but yet different from it , because there is not that heat and smart in Scorbutick blotches ; neither are they so fiery , or corroding , as to be converted immediately into ulcers , but grow rough and peel off. These generally are succeeded by pustles, turbercles, or boches and tumors ; at first of an uncertain colour , in one part deep red , in another pale ; though upon a small interval of time turn deep red all over , growing exceeding painful and hot , a sign of their being ready to burst out into Ulcers , or nasty Scabs.

§ 3. Scorbutick ulcers , especially those on the Shins, and near the Ankle, upon a short continuance grow callous about the Lips, within painful, as if prick'd with Needles ; their flesh appearing torn, uneven, of an ill aspect, the Lips tumid, the matter undigested thin,

thin, and ichorous, at length turns fordid, phagedænic, and cancerous; the bone underneath contracts a *Caries* or *Spina Ventosa*.

§. 4. *Scorbutick Leg-pains*, either haunt the Tendons about the Knee and Ankle, or the Membranes of the Muscles, or the *Periostium*. A Tendinous pain, is a shrinking or contracting Soreness; that of the Membranes of the Muscles sharp and distending, that of the *Periostium* contunding and grating.

§. 5. To these add a *Varicous Leg*, when the Veins are Tumefied to an extraordinary Protuberance. The Effect of all these promised Symptoms doth for the most part Result into Gross, Deformed, Tumefied Legs, some appearing full of Botches, others Tumefied, so as to pit upon the pressure of a Finger, and variously Discolour'd all over, like the Shins of those, that sit too near the Fire in the *Winter*; such Monstrously Tumefied Legs are frequently observed amongst *Dutch Skippers*.

C H A P. IV.

Of the Joynt-Scorvey.

1. *Symptoms of the Joynt-Scorvey.*
2. *Description of the Joynt-Evil.*
3. *External Rheumatisms Scorbutick.* 4. *Internal Rheumatisms Scorbutick also.* 5. *Frangibility and Cracking of the Joynts.* 6. *The Gout is not a Pain in the Joynt.*
7. *The Seat of the Gout.* 8. *The kinds of the Gout.*

§. I. **T**Hat they are incommoded with an Universal Soreness of Limbs, especially Arms, Shoulders, Neck-bones, and along down their Back, about the Brest, and round the Middle, with a Lassitude, or Wearinets, and no Disposition at all to stir or move, but inclined to Drowsiness and Heaviness, is the Complaint of many, upon the least alteration of Weather, who beyond all (peradventure) must be termed troubled with the *Joynt-Scorvey*; provided the said Lassitude be not such, as ordinarily is a præcursor to a Fever. Neither

is this Species, or sort of Scorvey only circumscribed with the prænumera-
ted Symptoms, but is also applicable
to those, whose Articles or Joynts are
subject to Crackle upon a sudden Mo-
tion.

§. 2. The Scorvey infesting the
Joynts, doth by means of an Aflux
of Virulent Humors, not seldom pro-
duce gross Tumors and Tubercles, of
a fiery purple appearance, and a very
painful Sensation, to which is conse-
quent an Immobility of the Articles,
and not long after the Skin being so
Cancerously tumefied, as frequently
happens about the Joynts of the Fin-
gers, Knuckles, Wrists, Elbows, Knees,
Ancles and Toes, is perforated by an
Ichorous, Raw, Indigested, Thin,
Serous, Livid, and sometimes yellow
Sanies or Matter, which Gleet-
ing through a small Orifice, that soon
grows Callous, and therefore not being
totally and freely Evacuated, occa-
sions the Bone to Cariate, which com-
monly by Exfoliation, or rather Cor-
rosion, Nature doth expel in little
shatter'd mouldering splinters. The

impure Nutriment the Conception assumeth in the Womb, rendreth Children more subject to this kind of Scorvey, than others of Riper years, and is vulgarly stiled the Joynt-Evil, and some will know it by no other Name than the Kings-evil, which properly denotes only Scrophulous and Strumatick Kernels and Tumors, though beyond all scruple are of the same Production with the former, and consequently highly Scorbutick. Neither are a *Fistula Lachrymalis*, and other malignant Issues near the Angles of the Eyes, or those *Epiphora's*, or running of the Eyes, different in Causality and Constitution from either of the fore-mentioned.

§. 3. Another sort of Joynt-Scorvey is specified in Rheumatisms, which generally declare themselves by pains of the Joynts, or rather in some by Tortures of the extream Articles, as Wrists, Knuckles, Joynts of the Fingers, Elbows, Shoulders, Hips, Knees, Ancles, Toes, and worst of all, when the impetuous flood of Salin Rheum streams to the Neck, and Back-bone.

(*Spina*

(*Spina Cervicis & dorſi.*) Pains of this Nature are ſo Violent, that for Acutenefs are not parallel'd by ordinary Gout-pains. In like manner this ſort of Rheumatism doth oft rudely afflict the ſides of the Head, decurring from the *Bregma*, to the upper and lower Mandibles, and Roots of the Teeth, ſhooting like Darts from one part of the Head to the other, and with ſo quick a Percuſſive motion, that Lightning and Blaſts ſeem ſlow to it.

I.

ſ. 4. Practical Obſervations declare to us a two-fold Rheumatism, External and Internal. The former is juſt now præmiſed: The latter is diſcovered by Internal, Acute, Fugitive pains, moving Erratically from one Bowel to another, thence poſſibly to the Guts, and thence again it may be to the Ambient Skin, or to ſome other Bowel, or the Breaſt; the quality of theſe Internal pains, is for ſuddain and violent Motion, reſembling External Rheumatisms; and for Acutenefs, forceth the Patient to ſcriech out, lamenting his
pain

pain, now in one place, præsently after in another, and suddenly again in another, to no small Amazement of his Visitors; since for a small interval being free from pain, feeling himself very well, and entertaining his Friends with Discourse, on a suddain a shooting pain shall take him, and alter the Scene to a contrary Disposition. Internal Rheumatisms are generally of a tedious continuation, though the pains are far more brisk at one time than another, and sometimes do make a Truce with the Patient for a few Dayes or sometimes Weeks, but in the interim detain him in a neuter Estate, which can be determined neither well nor ill, but weak; and thus I have heard of several, whose Recovery was scarce accomplisht in several Years; but that might partly be imputed to the ill address of the Physician, being unskil'd in managing that Disease.

§. 5. Among divers Joynt-Scorbutils, it hath been Remarked, their Bones have been very Frangible, that upon very small occasions, they have had the misfortune of breaking their
Legs,

Legs, Arms, Bones of the Hand, and Fingers; but before this can arrive, another Symptom doth ever præcede, namely, a Cracking and Noise of the Joynts, when they are moved. It argues him much a stranger to Practice and Experience, that never observed an Arthritick or Gouty-Scorvey, being such a sort of Counter-natural affection, as besets the parts near the Joynts with *Corrosive* Salin Ichors, and through them attaques them with very Lacerative and Terebrating pains, and such as commonly in the Night season Duplicate their Fury. In this Disease, as it's Genuine distinction from other Gouts, would certainly very much conduce to the Solacement of the Patient, and his compleat Recovery; so it would no less add to the Reputation of the Physician, and therefore shall in their places amplify upon it's Description, Causes, Signs and Cure.

§. 6. Two Bones being tied together, that place where they meet is properly termed the Joynt, from being joyned together, or Juncure, or Articulation. Physicians also stile it
an

an Article, but improperly, the word *Articulus* importing a Diminutive of *Artus*, Latiniz'd from *ἄρτος*, a Member. Moreover, Bones that are Diarthrotically joyned, are fastened together, besides particular Ligaments, by a common Ligament or Band growing usually from the lower part of the Apophyse of one Bone, and inserted into the upper part of the Apophyse of the other Bone. This common Ligament or Band is in point of substance tough, thick, dense and extensive, and by reason of its close Compacture, and immediate Adhæſion and Circumvesture, doth refuse passage to all Arthritick humours, whence may be Deduced, the Gout is not properly to be termed a Joynt-disease; whereunto this Instance contributes an unquestionable Evidence, that the Internal parts of the Joynt being Cartilaginous, and the Ambient parts Ligaments, are both Insensible and Incapable of Sensation: So that we must conclude the Universal Sentiment upon this particular a vulgar Error, growing from an Inadvertency and blind Ignorance in *Anatomy*.

§. 7. We

§. 7. We are therefore to state the Parts nearest adjacent (above or below) to the Joynt, the Seat of the Gout, which by reason of the Termination of the Tendons, and Circumvesture of the *Periostium*, are exquisitely Sensible, and exposed to the greatest Tortures.

§. 8. The Joynts that are most commonly haunted by the Gout, are the Hip, where it's called the *Sciatica*, or Hip-Gout; the Knees, where it's termed the Knee-Gout, or *Gonagra*; the Feet, which comprehends also the Ancles, and here it's named the *Podagra*, or Foot-Gout; and the Hands, including also the Wrists, thence called *Chiragra*, or Hand-Gout. Besides these, most other Joynts, as Shoulders, Elbow, and Back and Neck-bones, are sometimes also attacked by those furious pains. Why these last recited Junctures are not so much exposed to Gout pains, as the former, is, because being wrapt about with fleshy Tendons, and Muscles, receive thence a great assistance of heat and warmth, whereby the temperament
of

of those parts are much comforted, the External cold resisted, and those Saline Acrimonious Ichors soon dissipated.

The periodical Revolutions of these Arthritick Scorveys, are an Argument to me, they are subject to a Prædominance of both the *Luminaries*: For from the Seasons produced by the Suns Peragrations, they are Resuscitated Spring and Fall; and the *Lunar Circuits* occasion their appearance, and Return in many Bodies as ordinarily, as the monthly Maladies of Women, scarce any Sex or Age under Twelve or Fourteen, being exempted from the fore-mentioned *Arthritick Scorvey*; But it's otherwise in the Gout, which ordinarily rather invades the Crazy Bodies of Super-annuated Persons.

In contra-distinction to an *Arthritick Scorvey*, that's fixt to a part, viz. To the Hip, Knee, or Foot, as hath been just now Præliminated; there is also observed an *Arthritis vaga*, or Fugitive Arthritick Scorvey; but this being not different from an External Rheumatism, whereof hath been mentioned before, shall supersede any further Explanation. It

It will hardly escape the Animadversion of many Perusers, that I have beyond the Sentiment of other Physicians, reduced the Præternatural affections treated of here in this Chapter, within the Latitude of the Scorvey. Wherefore that I may not deserve a Sinister Censure, I will offer those Arguments, that to me were sufficient Motives, which if to others they seem less persuasive, I need only tell them, I may with as much right range them in the Train of the Scorvey, as *Eugalen*, *Solomon Albertus*, *Wierus*, and twenty more have given place to half the known Symptoms of the Diseased Body of Man, in the List of *Scorbutick Attendants*.

Touching the Insertion of the Scorbutick Lassitude in the first Article, all Authors that have Treated on the *Scorvey*, have granted that Symptom almost so Universal, as to be a Pathognomonick inseparable.

In relation to that of the second Article, most may find difficulty, to Identify it with the *Scorvey*, since it's not easie to discern one and the same Disease, to be the same in two or more several

several Patients ; much less a Disease that's so Various and Multiform, featured with several Shapes and Signatures in several Subjects : Wherefore I must be obliged to a Recital of certain Marks, and received Rules, whereby Authors do either Diversify or Identify Diseases.

Causes of the same Nature and Efficiency, though Univocal, do not always produce the same Effects, and therefore consequently (though two or more Diseases are engendred by the same Efficients, and out of the same Matter) they may be different Diseases, whence may be objected, that those Joynt-Diseases, though issuing from the same Causes the Scorvey is derived from, it's no Argument they should be termed the Scorvey. By this Assertion, the Peripatetick Maxim seems to be suspected, *viz. Posita causa, ponitur effectus ; ergo posita causa scorbutica, ponuntur effectus scorbutici* : And all Diseases that are produced by a Scorbutick cause, must be the Scorvey.

You must observe the truth of this Theorem doth depend upon certain

Limi-

Limitations, namely, a cause to be qualified to produce the same Effects, must be Univocal, and a *causa per se*; for otherwise (though granted Univocal) its causality may be *per accidens*. Depravated, and Occasioned to an Aberrancy by other causes: For instance in the Scorvey, imagine it's Production from a corrupt Melancholy; that may Stagnate in the Spleen, which being supposed in two several Bodies; in the one possibly it may constitute Symptoms, that are commonly Concomitants of the Scorvey; in the other, because there may be a mixture of Vitiated Choler, or of a *serum* affected with an ill Quality, or a great Infirmary of some Entrail; the aforesaid supposed Scorbutick cause shall be so Obtused, Altered, or Indued with a different Efficiency, that the Diseases so produced, shall be no Scorvey, but some other Counter-natural affection. This may also very properly be exemplified in Cœlestial Causes, among which conceive a Planet in such a Sign, and such a Degree, by his influence to produce certain Effects, upon any supposed Sublunary

D body

body ; at its return to the same Sign and Degree , possibly it shall not be a cause of the same Effects , because through the Radiations of other Firmamentary lights, it's influence shall be directed and limited to another Effect much different : Whence having rendred the Ground of the Variation of Symptoms in the Body of Man obvious , my next affair is to propose a Theorem whereby Diseases are Identified.

Diseases are computed the same, that are constituted by the same Univocal Causes, not aberring further *per accidens*, than that those symptoms that are effected *per se*, may in Number and Specification exceed those , that are produced *per accidens*. Moreover, Diseases by their Intrinsic signification imply Parts primarily affected, whereof they are Diseases ; and therefore Diseases cannot be Identified, unless the parts affected primarily be the same ; which we must now explain to be the same in the *Scorvey*, and in the *Joynt-Evil*, and *Gout-Scorvey*. None vary from this Opinion, that the parts Primarily and Original-

ly affected in the *Scorvey*, are all the chief parts of the *Inferior Cavity*, that appertain to the *Natural Faculty*, whose office is to Confect the Chyle, Elaborate and Depurate the Blood, which are the Stomack, Spleen and Liver.

The Chyle in those, that are afflicted with the *Gont* and *Joynt-Evil*, receiving a Malign Tincture and Impression, from an ill qualified Dissolvent, is a pręnant Evidence, the Stomack is a part affected; and the aforesaid Chyle upon its arrival within the Spleen and Liver, induing a quality of a Malignanter efficacy, expressly proves, both those Entrails æqually parts affected, and consequently the parts radically or primarily affected are the same.

Neither can I discern any difference in the Causes of both, residing in a corrupt Salt, fixt or volatil. It must then be the difference of symptoms, that creates suspicion of the Diversity between these Joynt-Diseases, and the *Scorvey*, which as was intimated before, may be remarked in all Universal Diseases, varying in

two or more Bodies, in several symptoms, and yet are deemed the same Disease: A continual acute Feaver (which I call an Universal Distemper, because it's symptoms are Universal, and disturb all the parts of the Body in their several Functions) in one is attended with Vomitings, in the other with a Looseness, in a third with neither; which nevertheless, are known and determinated Concomitants of a continual acute Feaver in all. In this Labyrinth, the Position stated in the beginning of this Paragraph, conducts me to an Expedient of surpassing the difficulty, *viz.* The symptoms that Identify Diseases, do immediately, and *per se*, emanate from them, in or near the parts affected: For instance, if the Heart be seized with a Disease, the Pulsation doth generally express it, being a symptom that immediately consecutes the Distemper in the part affected, which is the Heart; the like may be observed in all Diseases. These must be such as properly are terms *Pathognomonick*, and by Industry, and frequent Experience, may be discerned in most Distempers,

stemper, though symptoms that are occasioned *per accidens* are Infinite, and common to many Diseases. Now to our Affair; In the recited *Joynt-Diseases*, and *Gout-Scorvey*, the radical symptoms are an ill Confection of the *Chyle*, or a vitiated Elaboration or Depuration of the *Chyme*; a propagation of Malign Seminaries, in the Bowels and Blood, that renders Diseases contagious, Hereditary, and most Obstinate; these being likewise symptoms in the *Scorvey*, I judge I have justly Identified them; but that will more amply appear in my subsequent Discourse. Add hereunto, that in Identified Diseases, the Procatartick causes are the same, which in these various kinds of the *Scorvey*, is verified in a Salin Air and Diet, whence both the Internal, Antecedent and Continent causes afterwards take their Original, which also for a certain space continue the same, until that by a continued morbidick Action and Calcination, they pass into a contrary Nature, from an *Acid*, to an *Alkali*, as among *Chymical* processes, appears in *Acid Tartar*, which by Calcinati-

on makes a Transition into an Alcalious Salt of Tartar; nevertheless as the *Acid Salt* of Tartar, and the Alcalious Salt of Tartar, though contrary, do both retain the same name of *Salt of Tartar*; so an *Acid Scorvey*, and an Alcalious *Scorvey*, retain the same Denomination of a *Scorvey*, or are Identified in the same Name. Before I limit this Chapter, I must propose an Argument of a greater Consequence, namely, That those *Joynt-Diseases* and *Gout-Scorvey*, are only to be removed by an Antiscorbutick course; but not such as is directed by the præscriptions of the Vulgar, who are as blind in these Distempers, as they commonly are in Feavers and *Small-Pox*.

CHAP. V.

Of the Causes of the Mouth-Scorvey.

1. *A scrutiny into some Procatartick and occasional Causes of the Mouth-Scorvey.*
2. *The Internal cause of the Mouth-Scorvey proved.*
3. *The preparation of Mercury Sublimate corrosive examined.*
4. *The Spitile is Imbued with several sorts of Salts at several Seasons.*
5. *That it is not every Acid is the cause of the Scorvey.*
6. *Of Spirit of Salt, Nitre, Vitriol, and Tartar.*
7. *That some Acids are good Remedies against the Scorvey.*
8. *Chymical Theorems.*
9. *Turbith Mineral examined.*
10. *How a Salivation is Occasioned.*
11. *Observations upon the Dissection of the stomach.*
12. *Why one is apt to Spit after the taking of any ungrateful Medicine.*
13. *Animadversions upon the Ferment of the Stomach.*
14. *The Succus Pancre-*

aticus Silvii rejected. 15. That the Succus Pancreaticus doth never Secundum Naturam flow to the Stomack; that naturally it is not Acid, but Sweet. 16. Why Nature hath endued the Pancreatick juice, with a lentour and sweetness. 17. Proof that it is sweet. 18. Why the Stomack is provided with so great a number of Lymphatick Channels. The manner of the Concoction in the Stomack. 19. That the Digestive faculty is most potent about the upper Region of the Ventricle. 20. The manner of separation of the Concocted from the crude Chyle, with several Remarks upon the Dissolvent, or Mock-ferment of the Stomack. 21. The manner how Liquors turn Acid.

§. I. **B**Y a Scrutiny into some Proca-
 tartick and Occasional Causes;
 we may possibly be Conducted into a
 Path, of discovering the Immediate
 and Continent causality of the *Mouth-
 scorvey*; and therefore converting
 our Observation on the Effects of *Spi-
 rit of Vitriol, Nitre, Vinegar, &c.* We
 shall

shall on the æstimate of the use of any of them, mixt with Powders into Dentifrice, or Instilled into a Liquor for a Collution of the Mouth, award, they are as offensive as any Internal cause, by Rotting and Blacking the Teeth, raising Pain and Swelling in the Gums, and moving a thin Sputum.

§. 2. *Mercury* externally by Confriction forced into the Pores, or Internally taken in the form of a subdued *Sublimate*, or *Præcipitate*, soon Ravages the Mouth, exactly like, a Scorbutick Cause, since it forces up a Humour from within, that swells, Fissures, Ulcers, Pains the Gums and the Mouth, Looseneth and Rots the Teeth, Salivates, and occasions a fowl stink of Breath; all which symptoms, if we can demonstrate to take their rise from *Effluviūms* issuing from an Acid Salt, mercurial præparations have all their dependance on, and which within their most intime and central Particles, do contain a most Subtile Vibrating and Volatil Salt, will result into a præmiss, whence no
In-

Ingenious Reader, but with me, will conclude a *Mouth-scorvey* to be Engendred by a corrupt Acid Salt rendered fluid, and a Volatil Salt converted into corrosive, inordinate in motion, and united with a Fuliginous Salt. That you may be convinced of this *Hypothetick* proposition, take Inspection into the various processes of Mercurial Elaborations, where you find *Mercury* fixt (but very imperfectly) into *Præcipitates*, *Sublimates*, *Spirits*, and *Salts*, of divers Shapes and Colours, viz. Into White, Red and Yellow *Præcipitates*, by *Aqua Fortis*, *Spir. Nitr. Spir. Sal. Ol. Vitri.* all which, take notice, are vehemently Acid; and thence conceive, that the Volatil Salt, or Fugitive Spirits, latent in *Mercury*, are only to be tied by an acid *Vinculum*. If upon this you design to reduce *Mercury* (whether *Præcipitate*, or *Sublimate*, or any other *Præparation*) to its former shape of *Quick-silver*, it's easily attained, by freeing it from that acid *Vinculum*, in mixing it with a proportion of *Calx Viv. Gypsum*, *Soap-ashes*, *Sal Tartari*, &c. and driving it through

a Retort, whereunto it readily yields by means of those Alcalized, or fiery fixt Salts, mortifying the *Acid*. So that by the Rule of Contraries, if an *Alkali* reduces *Mercury*, the Consequence is, it was detained by an *Acid*.

§. 3. The Sequel is farther illustrated in the preparation of *Sublimate Corrosive*, the *Quick-silver* being first grinded with *Salt Peter*, *Vitriol*, or *Common Salt*, wherein being latent a most potent *Acid* (as appears by their Reverberatory distillations) doth soon invade and penetrate the body of the *Mercury*, and thereupon encountering with its most subtil and fugitive *Minims*, arrests, and in some degree doth fix them, qualifying their Volatil levity with it's ponderous *Acid*, and therein it's discernably assisted by affusing a few drops of distilled Vinegar, or other Acid Spirit, whilst the Salts and *Mercury* are grinding together. Upon this Mixture, that Salin Lixivious taste of the Salts, before their Coalescence with the *Mercury*, is changed into a pontick
Acid

Acid taste. And because *Therebenthine* is so pregnant of an Acid spirit (as the Rectified spirit thereof to the Tongue, is a palpable proof) it's therefore the chief refine, that is capable of subduing *Mercury*, whereunto it's Lentour and Glutinous faculty doth very much contribute.

§. 4. Hence let us make a nearer approach, to what is a Branch of my Subject, and necessarily conclude, that Spittle (*Saliva*) is endued with a Turgency of Acid Particles, far more potent, than sharp distilled Vinegar, because it's so effectual in Amortizing or Fixing *Quick-silver*, which may likewise be performed by the Acid juice of Limons: But observe likewise, that spittle is rendred Acid, only towards the latter end of the Concoction of the stomach, from the Acour of the *Dissolvent Liqueur*, and therefore the Morning-fasting-spittle is recommended for the purpose above mentioned. Moreover, take this Remark with you, That the spittle is imbued at several seasons with several salts; sometimes with Volatil, other

ther times with Lixivial salts, sometimes with Acid, and sometimes with mixt salts, according to the contents in the Capacity of the stomach, and about it's tunics; so that all sorts of spittle is not proper for the Amortizing of *Mercury*.

§. 5. Now upon Compute of the whole matter, though your Reason may reap so much satisfaction, as to believe potent *Acids*, the sole subduers of *Mercury*, and capable of arresting its Fugitive particles; yet we must not be so facil, as to concede all *Acids* pernicious in the same Latitude with *Mercury* coagulated, of acting upon Liquours of the Body, and rendring them Scorbutick aggressors; for the greater number of *Acids*, Administred with rules of Caution and Prudence, obtaining a virtue of Repelling and Suppressing some kind of Scorbutick symptoms, bear an evident Testimony of the contrary.

§. 6. Spirit of *Salt Marin* (I mean not the *Gracian* Impostor's, but) dexterously prepared, according to the rules of the *Spagyrick Art*, hath acquired a good Character to some Physicians,
for

for præscribing it to their Scorbutick Patients: And I were to blame for my silence, should I prætermit the great Effects of *Spirit of Nitre*, Philosophically purged from its Arsenical fumes, not a few Scorbuticks owing their Recovery to this *Acid* from very obstinate accidents, that were true issues of that Disease. Neither can the performance of these præcited inciding deoppilative *Acids*, be justly called into doubt, since from the Spirit of *Vitriol*, and *Vinegar*, (used in the Condiment of *Capers*, *Samphire*, &c.) though of a styptick Energy, advantage hath been received in the Cure of Scorbuticks and spleneticks. If then these Corroding and Cerberous *Acids* merit a reception so just among the *Apollinean* Faculty, certainly, those that are acquainted with the true Process of the *Acid* Spirit of *Tartar*, being so Penetrative, Attenuating, Digestive, *Ecphraëtick*, and yet of an amicable Acour, can prætend to a greater secret to Eradicate the scorvey. By the way, observe, It is not against an *Acid scorvey* they are such excellent Remedies, but
against

against a *Lixivial* one, which in the progress of this Discourse will be farther Explained to you.

§. 7. From this Præcurrent Illustration, we may be assured in Opinion, that *Acids* by their native Qualification, or Corrosive to some Scorbutick bodies, and therefore it must be through a præternatural Affection, they are enforced to constitute the Principles of the fore-cited Malady. On this occasion, it will not be Dissonant, to Analyse *Mercury* (as it is reduced to a *Præcipitate*, or *Sublimate*, or other Coagulated body, by acid Salts or Spirits) into its most Intime Syntheticks, whence the Genuine Procreatives of the *Scorvey* will more distinctly Emerge.

§. 8. In order to the Unravelling of this so close knitted Mineral, I must first Represent to you these by me received *Hermetick* Theorems.

1. *All Alcalies are contrary to Acids, and consequently do extinguish them, or if encontring in a lesser proportion only præfract them. Attuse the Alcalized Liquor of Tartar, to the Acid Oyl of Vitriol, in their just proportions,*

tions, the Production will be a Salt of *Tartar*, much præfracted in its Alcalized faculty, and a Salt of *Vitriol* much obtused in its Acidity; but if the Alcaly of *Tartar* be superiour in measure to the *Acid* of *Vitriol*, then it doth reduce the *Vitriol* to a *Caput Mortuum*, and intirely extinguish its Acidity.

2. *All Volatil Salts are fixed by Acids.* The Volatil salt of *Hartsborn*, or *Amber*, being Irrorated with Spirit of Salt, is soon laid in sleep, and loses its Wings.

3. *There is no Alkali, but in its intime and centrical Particles, contains a most Acid, Corroding, and Perforating Salt.* Likewise, *There is no Acid Salt, or Spirit, but in its centrick Particles is lodged a most Igneous Alcaly.* Within the centrick of the Acid Oyl of *Vitriol*, there is an Igneous and Caustick salt.

4. *Volatil Salt is nothing but the fixt Salt of any Body, Volatilized by the admixture of Sulphurous Particles.*

5. *The Purgative, or Vomitive, or other active faculty of Bodies, doth Emanate from their Volatil Salts; either*

ther by Irradiation, or Atomical Effluvioms.

From the Application of these to any particular Preparation, we are to expect, what now we Dive into. To this purpose, let our ordinary *Turbith Mineral*, as it is in the *London Pharmacopœa* Transcribed by our Physicians out of *Unzerus*, who Records the Invention of it to *Adam Bodenstein*, be our Subject, as best known to my Perusers, both for its Use and Process; though possibly this remarque may escape their knowledge; that whereas Directions are given in the *Dispensatory*, for affusing an Anattick proportion of dephlem'd Oyl of *Vitriol* to *Mercury*, purged from its plumbeous Recrements, which Evaporated, leaves a white residue in the bottom of the Bolt-head, to be sweet washt into a yellow Powder; the præscription of the fore-mentioned *Bodenslein*, requires an addition of Salt of *Vitriol*, in proportion of half the weight to the Oyl of *Vitriol*, which renders the Result of the Elaboration less Churlish, and more effectual.

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Your view on this discerns the most compact body of *Mercury*, dissolved by the Acid of *Vitriol*, its Fugitive spirits detained, or Volatil salt partly fixed by its Pontick Liquor, or Acid Salt, and through their mutual Re-action so Elaborated, that in this Conjunct state have assumed neuter Faculties, not to be comprehended in either Singular: For the one is so eminent in the Adstrictive, that in Haemorrhages both Internal and External it performs, what other Restringtons or Emplasticks fail in. The other, *viz.* *Quick-silver* aims at no other Effects, than its weight or gravity is capable to produce; but upon their Coalition, they remove most obstinate Diseases by Vomit, Stool, Urine, Sweat, and Salivation.

From the Inference of the first and second *Spagyrick Theorems*, you must be convinced, it is the Volatil Salt of *Mercury*, and no other Constitutive principle, is here Coagulated, because performed by its opposite, a fixing Acid, and thereby somewhat præfracted; for through the abatement of its Vibrating and Penetrating

trating Faculty, it's experienced not so capable, to Amalgamate the nobler Metals into a *Calx*. From the repercussive particles of the said Mercurial Volatil Salt, the Acid of Vitriol is not only obtused, but rendred a dissolvent corruptive Acid, whereas naturally it's known a great Præserver from putrefaction and dissolution. And if you give credit to the fifth Axiom, which long Experience hath established firm and indubious among most Practicians; you must assert, not only the Vomitive and Purgative faculties to be issues of the Mercurial Volatil Salt, but also its Salivative quality; which explain'd in manner following, seems to me to be evident enough, how it exerts its power.

§. 10. *Turbith Mineral*, or other crude *Mercurial* præparation, is no sooner swallowed down into the Stomack, but through its most subtil volatil Salt, doth attaque the Salts, that are floating in the Liquor, the capacity of the Stomack is ever furnished with more or less, (for an absolute driness, would certainly be attended

with a most dangerous Hiccoch, or Convulsion of the Stomack) which in some proportion converting into Particles of its own Nature, doth soon occasion a Turgency in the Liquor of the Stomack, (being an Effect of the Contrariety and Combat between the *Mercurial Volatil Salt*, and the *Acid*.) And the Lymph contained in the Lymphaticks of the Stomack, which Turgency continued to the *Ductus Salivales* under the Tongue, and the others that terminate about the Cheeks and Gums, causeth an overflowing of the fore-said Lymph or *Serum*, where it's called Spittle or *Saliva*, *quasi sal Liquor*, *ceu Salsus Liquor*, or Salt Spittle, for such it is. Here we must make a Digression to a succinct Explanation of the *Fabrick*, and Liquor of the Stomack, discovering the Nature of it, whence it Sourceth, and through what Creeks and Inosculationes it makes its Irruption, and thence it will prove more facil, by a further pursuit to render the manner of Salivation Obvious to the meanest Capacity.

§. 11. Experiment in this Case makes the strongest Plea, and therefore I will offer you my Observati-
on, Upon the Dissection of a Dog, fed with salt Meat intermixt with *Sublimate Corrosive*, and thereupon most thirstily Lapping a great quantity of Water, wherein Pease had been boyled, and immediately strangled. I was chiefly intentive on a strict view and research of the Stomack, in whose External Surface or Tunic, being a process of the *Peritoneum*, the Coeliac Arteries appeared very tumid and full, and every where discernable to the Eye, accompanied with Lymphatick Vessels, that were also no less Turgid, and supported by a number of small Glanduls, which at other times remain hidden, because there is not so great a Confluence of Lymphatick matter, to swell them up. The *Crusta carnosa* and the *Interior* Tunic, separable in a Dog from one another, through this superfluous Irrigation were Fungous, and upon a pressure the *Lympha* exstilled at little Pores or Orifices; which probably may be conjectured the extremities

of the Inosculation of the Lymphatick Vessels. The dispersions of the Branches and Terminations of the foresaid Coeliac Artery, through the middle and inward Tunic, were extremely distended with Humors, and the Lymphatics every where throughout both Tunics, no less visibly burden'd with moisture, and upon a diligent observe of their track, were found to ascend the *Oesophagus*, and to perforate the great Glanduls, and thence to the Tonsils, the Ranine, and other Glanduls of the Mouth.

§. 12. Before I detected the Expiration of these Lymphatick Channels, could not out of any Author supply my self with the Reason, why upon the assuming of any ungrateful Medicine, Purgative or Alterative, after a small interval, the Mouth doth salivate a thin pellucid *Serum*; which from the præmised Discourse seems very evident: For upon the Combat between the Dissolvent Liquor (or that which is improperly called the Ferment) and the Volatil Particles of the Medicine, happens a Turgency, which

which by continuation being likewise Impressed upon the Lymphaticks of the Tunics of the *Ventricle*, and *Oesophagus*, must necessarily occasion an overflowing at the Termination of the *Ductus Salivales*, both of those under the Tongue, and the other on the sides of the Gums.

§. 13. By the way, I must make one observe, how unsuccessful Authors have been, in Imposing the name of *Ferment* upon the *Acid juice* of the Stomack, and describing its Source, or Original. The word *Ferment*, (as you may read more at large, in the first part of my Treatise, *De Febribus*, Cap. V.) is Universally taken to be that, which Clarifies and Exalts any compound Liquor, that's newly made by Decoction, Infusion, Expression, or otherwise, to a greater Perfection, by means of a Simpering (for *Fermentum* takes its Derivation a *Fremendo*, and not *Fervendo*) or a small Ebullition, whereby the Liquor is Subtiliated or Attenuated, and the Heterogeneous bodies separated into a Froth and Lees. This Signification

can in no manner be applied to the
 foresaid *Acid juice*, performing only
 the Office of Dissolving the Victuals
 received in the Stomack, and Coae-
 quating it into a Cream, or *Chyle*; a
 word Originated from *χῆμα* to Dis-
 solve: Wherefore there being only
 a Dissolution of what's Ingested, or
 a Production of *Chyle* attained by
 means of this *Dissolvent Acid*, and no
 Depuration or Exaltation; it doth
 more properly require the name of a
Dissolvent Liquor, than of a *Ferment*,
 and consequently there is no Fermen-
 tation in the Stomach, but only a
Dissolution, and *Coaequation*; whence
 may be remarked, how Truth is oft
 over-ruled by an impetuous Current of
 Opiniaters.

§. 14. The source whence this *Acid juice* should stream, was for a long
 time asserted the Spleen, effusing
 through the *Vas breve*, into the Sto-
 mack, which the Curiosity of Ana-
 tomists observing not to be Pervi-
 ous at its Termination, concluded
 there must be some other passage,
 through which the said Juice was
 con-

conveighed ; but none durst præsume to assign it, until *Sylvius*, the late Physick-Professor of *Leyden*, did attempt to prove this *Acid juice* to be engendred in the *Pancreas*, and therefore named it *Succus Pancreaticus*, whence through the *Ductus Virsungianus* was by Regurgitation forced up into the Stomack. This Conception of *Succus Pancreaticus* hath so fondly been Nursed by him, that in his *Idea nova Prax. Medic.* he doth Impeach it, to be the Productor of most Diseases. Much less than a Demonstration, for scarce a probability of this *Acid Pancreatic Succus* hath been offer'd by him, which so much Disgusted *Monseigneur le Vasseur*, a Physician Regent of the Faculty of *Paris*, that he undertook to Demolish that Principle in a small tract written in *Latine*, wherein he doth fiercely Impugnate his Triumvirate of Morbifick Causes, (as he styles it in his own *Ideom*) though without obtaining any Advantage on his Adversary, the one being no more Auspicious in Refelling the *Acid Pancreatic juice*, than the other in asserting it.

§. 15. In the first place, I find no Difficulty in maintaining, that the *Succus Pancreaticus* is at no time *Secundum Naturam* propelled into the Stomack; for the *Grand Channel*, which is the *Ductus Virsungianus*, terminating near the Confines of the *Duodenum*, and the *Ilion*, and Disburdening the superfluous Juice into it, is naturally according to the *Peristaltick* motion, being performed by the Contraction of the Circular Fibres, expelled and carried downwards; and if at any time it is forced into the Stomack, that must needs happen by means of the Inversion of the Peristaltic motion (namely, the Circular Fibres contracting from below upwards) which undoubtedly is Convulsive, being occasioned through a Stimulation of the said Juice, Vitiated or Obstructed, and is absolutely *Contra Naturam*. But if according to the Tenour of this Discourse, the *Pancreatic Juice* is Regurgitated into the Stomack; is so far from Pleasing or Delighting it, through that amicable Acour, that's Fictitiously attributed to it, that it occasions a maukish
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Nauseousness and Salivation, which *Re vera* are effects of a sweetish thick moistening Water, contrary to what flows from the Causality of an Acid Humour; and nothing is observed, to have a greater share, in dissolving the Tone of the Stomack, and contributing Matter to those Slimy Ropy Crudities, plaistered to the sides of the Stomack, than this Incrassated *Pancreatic juice*. So that it must be believed, that this kind of Fallacious Doctrine is by those, that for their seeming parts are placed in the School Chairs, violently Imposed upon their Scholars, who Imbibing this in their Infant Studies, like Principles of Religion, esteem it a great Crime, ever to doubt of what their Masters infused into them.

*Quo semel est imbuta recens servabit
odorem,
Testa diu, &c.*

§. 16. In its natural Qualification, I am assured, the *Pancreatic juice* partakes of no Acidity, proof thereof shall be offered you below. The

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Pancreas to me, seems to be the Sink of the Lymphatick Vessels, whither they Post the superfluous Lymph, that hath done its Task, to be Evacuated as an Excrement. But here the Wisdom of Nature is very remarkable, in Inserting the *Ductus Pancreaticus*, or *Virsungianus* into the *Duodenum*, neighbouring so near to the *Ductus Cholidochus*; the one namely the *Cholidochus*, serving the Gall Bladder, (*Cystis bilis*) as a Conduit to Disgourge the overflowing Choler into the Guts, which otherwise through its extream Amaritude, and Lixivious corrosive Salt, being rendered so Superlatively sharp and detergent, would offer violence to the most sensible small Guts, and soon gnaw off its Internal Tunic, were it not that meeting with this Sweetish, Thick, Moistening Water, Extilling from the *Ductus Pancreaticus*, it was soon allayed, and qualified with its Lenitive and Dulcifying Lentour. A further use Nature hath Destined it to, is to Moisten, and render the Internal Tunic of the Guts Glib and Slippery, for to Promote, and Facilitate the descent of Excrements, being

ing moreover the material Cause of that *Pituita*, or Fleam, which is ever found in the small Guts, in the state of Health. Neither do I give the least Credit to those Capricious Opinions, the fore-named *Sylvius* hath Superstructed upon so Erroneous a Fundamental, as this *Acid Pancreatic juice*, viz.

1. That there daily happens a mild Effervescency between the *Bilis* and that Juice, which I am confident a Healthful Person is altogether Insensible of, unless Indulging his Appetite in a large Rouse of Strong Liquor.

2. That through a Vitiate Acidity of this Juice, are occasioned *Dysenteries*, Gripes, Vomitings, and what not; read *Chap. V. Lib. Præcitat.*

3. That all Diseases depend on the Præternatural disposition of his *Triumviral Humour*: To wit, Fleam, Choler, and this *Pancreatic juice*; but for all this, not one syllable of Proof, rather introducing a Thousand Absurdities on the Neck of another.

§. 17. I am now Arrived, where E

am

am to Illustrate to you, the *Pancreatic juice* is so far remote from being *Acid*, that it's perfectly sweet. It's a Concession granted by all, That Moisture is more apt to turn *Acid* in an Extinct Body, than Living; as appears in *Veal*, which being kept too long, expires an acid steam. If so, then,

1. The *Pancreatic juice*, obtaining an Acidity in a Living Body, must necessarily assume a greater Acidity in a Body Expired; which is observed contrary, for the Juice that is expressed out of the *Pancreas* of a killed Calf, hath a clammy sweet taste, and certainly is endued with a far sweeter flavour, whilst it contains a proportion of Volatil Salt within the Channels of a Living Body.

2. The *Pancreas* it self Raw or Boyl'd, pleases the Palate with a sweet taste, beyond any other sort of Flesh, which qualification can not be in a Body that engenders an Acid Juice, or daily is Irrigated with it. *Propter quod unum quodque tale est, illud magis tale est.*

3. *Lymphatick* Vessels about the Stomack, and those of the *Pancreas*,
both

both Deriving from the Spleen, and having a Communication and Commerce in the same Contents, namely Juices or Lymphs, It is not to be doubted, but both Juices of the Stomachick and the Pancreatick Lymphæducts, participate of the same Nature, and Taste, which being deprehended sweet in the Stomack Lymphæducts, can be no other in the Pancreatick. Medicines that Create some Labour to the Stomack, and move a Turgency in the Lymphatics of the Stomack, occasion an overflowing of the *Ductus Salivales*, or a Salivation of that very Lymph, or Juice, that was floating about the Ventricle, which is commonly pronounced by all, to have a Sweetish or *Subdulce* taste in the Mouth, and doubtless, that of the *Pancreas* is not different. The manner *how* is expressed before.

4. An Argument may be Deduced *a causa*; The Lymph of the Stomachick and Pancreatick Vessels is Replenisht, and well Saturated with Volatil Salt, whose Nature is Experienced, to Expel and Extinguish all Acidity, and so consequently the fore-
said

said Lymph must prove sweet, and in no wise Acid.

§. 18. The Lymphatick Vessels being in great numbers directed from the Spleen to the Stomack, to Transport thither a proportion of Lymph, that in the Percolation of the Blood, was attracted and assuaged into the said Lymphatick Vessels, being thorowly Saturated with Volatil Salt, transported through the Pores of the Stomachick Nerves, and Cœliac Arteries, is Effused into the Stomack at such times when it hath received Victuals to Digest; for thereupon the Arterial Blood, and Vital Spirits are moved and attracted, and a heat Excited; whereby the Lymph being Attenuated, rendered Turgid and the Vessels Tumefied, is forced into the Stomack in that quantity, as doth sufficiently Relax the said Lymphæducts. This Lymph by means of the said Volatil Salt, is so Subtil, Penetrating, Attenuating, and Rarefying, that Uniting with the Volatil Particles of the Liquor ingested, and that which by Mastication of the Victuals lies
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Perfused and Dissolved, doth soon dis-
 unite and dissolve the *Vinculum* of
 the solid Victuals, and being thorow-
 ly mixed with the Liquid, is speedily
 reduced into a Cream or Chyle. Whilst
 this Attenuation and Solution is per-
 forming, there is a Turgency occasi-
 oned in the Capacity of the Stomack,
 which streightning the Arteries, that
 Amplexe the Stomack, do through
 Renix duplicate their Pulsation in
 Fræquency and fortitude, (as appears
 upon feeling the Pulse of the Carp
 after Dinner or Supper) whereby the
 Heat is much intended, and Copious
 Effumations of *Vital spirits* or
Arterial Volatil salt, immitted into
 the said Capacity, which do most
 vigorously assist the Dissolution and
 Concoction of the Stomack.

§. 19. That the Concoctive Facul-
 ty is most Active, and Potent in the
 Fund, or bottom of the Stomack,
 hath been hitherto the blind Opinion
 of most Anatomists, upon Surmisal,
 that the *Acid Ferment*, which bears a
 great part in the Concoction, through
 its Gravity and Pracip tative quality,

is chiefly floating about the lower Region of the *Ventricle*: But if we suppose, the Digestive Operation to be performed principally, by virtue of the *Volatil Salt* contained in the Pores of the Lymph, being of a Subliming and Ascending Nature; the Stomack by reason of those greater Nerves of the Sixth pair, and Fibres of the greatest strength, Circumvesting the upper part of the Stomach to be most Robust, and the Heat and Dissolvent seems to be Reflected, Collected, and Augmented there; it must be confessed, that the Digestive Faculty is most Energetic about the upper Region of the *Ventricle*. The next Particular in order to be Explain'd, is, when and how the Juice that is Concocted, is separated from that, which is not yet perfectly digested, and afterwards Transmitted through the *Pylorus*, or Inferior Orifice of the Stomack, into the small Guts. That the whole content of Victuals and Drink is not so long retain'd in the Stomack, until the entire Mass be totally Digested, is Experinced by all, that observe their Stomacks after Meals,

Meals, to grow gradually Lighter and less distended, and their Appetites likewise to return Gradually, and so consequently the upper part of the Chyle being first Concocted, and swimming a-top like a Cream, is first præpared, and ready to be Effused thence in this manner: The *Chyle* being thorowly perfused with a great proportion of *Volatil Salt*, is so Rarefied and Tumid, that it now exceeds its bounds, and by assistance of that Aculeous quality of the aforefaid Salin Particles, stimulates the Oblique Fibres to Expulsion, and still as in the same manner the Stomack is gradually disburdened, so the Fibres gradually Contract and Corrugate the Tunics into a smaller Comprehension, until the whole be Transmitted, and the Stomack reduced to a scarce greater Circumscription than a Fist. Several particulars here are of Remarque.

The first, That the Finer and most Coæquate matter is Extermined first, and that which is somewhat of a grosser Pulment next, until at last the coursest and Faculent part succeeds to be wrought upon, which being Tough,

Tenacious and Glutinous, requires an *Acid Dissolvent*, by whose force, together with the Continuation of the heat, Animal and Vital Spirits, or Vivid *Volatil Salt* fuming out through the Pores of the Nerves and Arteries, the matter is more potently Incided, Comminuted and Dissolved, and the said *Acid Dissolvent*, or *Mock-Ferment*, obtaining a Pontique or Amicable astringent Acidity, is qualified thereby, to præcipitate the gross remainder of the *Chyle* into the *Duodenum*, and afterwards to fortifie, and Corroborate the distended and defatigated Fibres of the Stomack by a gentle Astriction.

The Second, That the *Ventricle* being full, the *Pylorus* or lower Orifice is Erected high, to prævent the too sudden Expulsion of the *Chyle*, and therefore no part but what is uppermost, and rendred Turgid, by being thoroughly Imbued with *Volatil Salt*, can be Transmitted; but as the *Chyle* Ebbs lower, so the *Pylorus* seems likewise to Decline downwards by the Contraction of the Fund of the Stomack, to give an easier passage to the
weighty.

weighty and drossy remainder of the fore said *Chyle*, to which, should the *Pylorus* continue Mounted, at so great a distance from the Inferiour Region of the *Ventricle*, the Trajection or Expulsion would prove extream difficult.

The third is, That the last remainder in the Stomack, upon every compleat Concoction, is nothing but Dross, among some Physicians called the *scoria*, which being Commixt with the *Acid Mock-Ferment*, is præcipitated into the *Duodenum*, where by reason of the Acrimony of the Commixt *Acid*, vellicates the said Gut, at the Terminations of the *Cholidochus*, and the *Ductus Pancreaticus*, Irritating the former to Disburden its *Cargo* of Choler, and the latter its Incrassated Glutinous Lymph, of which three only the Excrements of the Guts do consist, *viz.* From the Dross or *scoria* of the Stomack, they Derive their Matter and Consistency, from the Pancreatic Lymph their Clamminess and Cohætion, and from the Choler their colour, from the quantity whereof it's more or less Yellow,

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Red,

Red, or Luteous, and from the commixture of all their stinck doth Derive.

The fourth Observe is this, That whilst the Body is seated in a Healthful state, the sweet Cream of the *Chyle* not being irritative, passes the *Duodenum* and the other small Guts, without being Perturbated, Commixt, or Corrupted with the foresaid Excrementitious Choler, or Pancreatic Lymph, which ever as I said before, are disburdened at last, separately from the Alimentary Juices.

The fifth Discovers an Error of Opinion of some of the Learned in Physick, who strive to maintain, that it is the Red Dregs of the Blood, is Evacuated through the *Ductus Pancreaticus*, which they name *Gloves Sanguinis*, not being unlike the Dregs of Red-Wine, which partly they say consists of thick Melancholy, that hath perform'd its Task, and partly of the Red of the Blood, that was too long Retain'd, and somewhat Aduſt. Of this Opinion the Learned Professor *Vander Linden*, of Famous Memory, was the Author, and also did (among the

the rest of his Disciples) Instil it into me many Years past, but having only his *æter* *et* *et* for it, and upon Anatomical search into several Subjects, not finding any Red Dreg or Lee, or any thing else, except the oft fore-mentioned thick Pancreatick Lymph, have justly deserted that Tenet.

The sixth puts me in mind of the Preparation, all solid Victuals requires, namely of being Masticated, Ground small and even by the Teeth, and withal Perfused with Spittle, which almost consisting of the same Principles and *Volatil Salt*, the *Dissolvent* Lymph of the Stomack doth, is, a singular assistant to the Concoctive part. That the Spittle is so pregnant of *Volatil Salt*, is clearly Evinced from it's Dissolutive virtue, Softening and Discussing almost any Pustle in less time, than any Medicine whatsoever; and supposing the Spittle to be so Turgid of *Volatil Salt*, much more the *Dissolvent* Lymph of the Stomack.

The seventh Annotation is, That during three fourth parts of the time

of Concoction, the *Dissolvent Juice* is no wise Acid, but on the contrary partakes of an Igneous Alcalized volatil Nature, abounding with Penetrative, Dissolutive and Pungitive, or Mordicant Effluviiums and Steems, as may be observed by those, that occasionally Belching at the mid-time of Concoction, or before, or somewhat after, are so vehemently Stung, Bitten, and Inflamed in their Throat, and along the *Oesophagus*, that it is not in the power of *Brandy*, or other *Ardent Spirits*, to imitate those Effects. But the *Volatil Salts* being together with the *Chyle*, passed out of the Stomack into the small Guts, the *Dissolvent Lymph* is left *Acid*, to accomplish the Digestion of the Gross and Fæculent remainder, which towards the latter part of Digestion, or some six or eight hours after Meals, in some quicker, in others slower, is upon an Eructation or Belching perceived in the Mouth, not only Sour, but *Acid* with an Adstriction, not unlike the *Acid Spirit of Vitriol*.

§. 21. To those that are knowing in
the

the Analytick part of the *Spagyrick Art*, it's very Obvious, that Compound Liquors consist of a *Volatil Salt*, and an *Acid Tartar*, as plainly may be Demonstrated in Wine, whose *Volatil Salt* or *Spirits* being extracted, and dissolved from the Union with the Fixt Particles, through the attraction of the igneous effluvi-
 ums of the Ambient Air, the *Acid Tartar* doth immediately appear in the taste of the remaining Liquor, which then is called *Vinegar*, or Sour Wine. In the same manner most other Liquors and Decoctions being deserted of their *Volatil Salt*, by Attraction of the Sun-beams or Ambient Air, do likewise immediately turn sour. Spit-
 tle though sweet, when it's egested out of the Mouth, grows *Acid*, as soon as its *Volatil Salt* is Exhaled. Upon so perspicuous an Illustration, I cannot imagine you expect further proof, that the *Dissolvent Lymph* of the Stomach is not at all *Acid*, but contrary, as soon as it's effused into the Stomack, it's Subdulce or Sweet-
 ish, and continues so until it's Body is Expanded, Pores opened, and it's

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Volatil Salts and *Spirits* Extracted to the Circumference, and then it's grown Igneous Colliquative and Mordicant, and at last, the *Volatil Salt* being partly Evaporated, and partly Attracted into the *Vasa Lactea* (like Wine changing into Vinegar) turns absolutely *Acid*, Inciding and Astringive, Arguments in greater number, and of no less Evidence, I could here offer to your Consideration, but do prætermit them to avoid the Suspicion of judging my Reader so Obstinate an Opiniater, as not to be perfectly Convinced of the truth of the *Præmisses*, by what is already proposed. Neither would I have you conclude, that I have Steer'd beyond my Rhomb, in Expatiating into so Ample a Discourse of the first *Concoction* or *Chylification*; for the true *Theory* of the Office of the Stomack, and its manner of Operation, is a great Fundamental of the Art of *Medicine*, the Ignorance whereof (God mend it) among Physicians, is a great occasion of their too great Correspondence with the Sexton and Grave-maker. What Principles, or rather *Prænomenon*,

non, an Eminent Phyfician of the City, had assumed in Informing himfelf with the manner of Production of the *Scorvey*, and its Causes, I could never apprehend from his Receipts; But this is moft certain, that a Patient of this Phyfician, a Perfon of Quality, and a very near Relation to a Pear of the Realm, for the Benefit of Air, living at *Woodford* in *Effex*, had the ftrength of walking Abroad, made ufe of Medicine præfcribed by him, but within two dayes Ghosted. Whether the faid Medicines, fet the Humours a float, or whether our Doctor had been upon the Merry-pin before he Præfcribed, was much doubted.

CHAP.

C H A P. VI.

1. *That the Material Cause of the Mouth-Scorvey is an Acid Lymph of the Stomack. How a Salivation is Continued ; the Cause of those Anxieties in a Salivation.* 2. *The Nature and Kinds of Acids. The Effects of the Acid of Vinegar, Vitriol, Nitre, Salt Marine, Tartar, Antimony, and Sulphur.* 3. *That there is a Difference in Nature in Acids, and likewise in Alcalies between themselves.*

§. I. **I**N Mercurial Salivations, wherein (as hath been hinted before) every Particular doth so exactly resemble the Scorbute, I find the Material Cause is the Liquor of the Stomack, and the *Lymph* of the Stomachick Lymphæducts, which like a continued Stream is forced up ; but how this Illue of the Mouth is supplied, ought to be further inquired into.

Although many of these Water Rivulets

vulets from the Brain, and other parts of the Head, do Communicate with those, that are terminative within the Mouth, yet it must be received for a Truth, that the great Source and Spring is about the Stomack, and the Pancreatick Lymphaticks, which latter streaming so Impetuously upwards, are the chief Cause of the Constipation of the Belly, being otherwise greatly promoted, in its natural Quotidian Evacuation by the wonted descent of the *Pancreatick Juice*, Relaxing and Lubricating the passage of the Guts. The Anxiety attending a Salivation, is a Symptom oft very Urgent, and depends on a streightened passage of the Blood, through the Ventricles of the Heart; for being deprived of the greatest part of its *Volatil salt*, imbibed by the Lymph or *Serum*, which is now too much drained from the Blood, the Pulsifick Faculty for want of the *Volatil Salt*, must necessarily Languish, and the Blood being too dry, and Coagulative, must needs pass the Heart with great difficulty. Neither is this the sole Cause, but being accompanied with

with a stoppage of the Salivation, as oft happens, the Salivable Matter doth Regurgitate to the Lymphaticks about the *Hypochondria*, where it doth Duplicate the Anguor, which in some I have observed so extream, that they owed their narrow Escape to very Opportune Remedies, and most, if not all, that have the ill Fate, to be Banisht the World in a Salivation (which the *Surgeons* and *Apothecaries* of this Town are so Unsuccessful in) have been stifled by these Angours.

§. 2. The Blood floating through its Chanals, naturally is Indued with a sweetness, but in a Salivation, and the Scorbute, turns *Acid*; the manner how, is the great Secret of this Theory. Præmissorily it's requisite, to propose the Nature and Kinds of *Acids*, which are various. The *Acids* of *Vineger*, *Vitriol*, *Nitre*, *Common Salt*, *Tartar*, *Antimony*, *Allom*, *Sulphur*, &c. all obtain a Specifick difference, as is rendred Obvious by their Properties and Efficiency. The *Acid* of *Vineger* is particularly observed Potent, in Attracting the *Sulphur* of

of Minerals. The *Acid* of *Vitriol* is Diametrically opposite to the *Alkali* of *Tartar*. *Nitre* by force of it's *Acid*, doth Amortise the Volatil Salt of any Mineral ; Abstract it oft from *Mercury*, and the result will be a Dulcified *Arcanum Corallinum*, a Medicine singularly reputed for a mild Vomitory and Dejectory ; upon further repeated Cohobations, the foresaid *Arcanum* deserts its Cathartique Faculties, and is limited to a *Diaphoretique*. The like Effects it produces on the furious Body of *Butyrum Antimonii*. The *Acid* of *Salt Marine* is the sole Dissolvent of Gold, especially when united with the *Acid* of *Nitre*, and then constitute the true *Aqua Regia*, which is in nothing different from the common *Aqua Regis*, abstracted from *Vitriol*, *Nitre*, and *Sal Armoniac*, except that the former far exceeds the latter in Purity and Force : For though the common *Aq. Regia* be made out of *Aq. Fort.* Cohobated upon *Sal Armoniac*, it's most certain, that the said *Aq. Fort.* is nothing but the Spirit of *Nitre*, that of *Vitriol* being too ponderous to ascend through

through the same degree of Heat ; and the *Sal Armoniac*, from which this is propel'd, contributes nothing, but its *Acid Spirit of Salt*, which constitutes the Body of the said *Sal Armoniac*; for the Volatil Salts of Urine and Soot, which defer to it a Specifique difference from other Salts, being *Alcalies*; are Amortised, and Extinguisht by the *Acid* of *Nitre*, and consequently in their Extinction, must necessarily by Reaction obtuse, and hebetate the *Acid* of *Salt*, and *Nitre*, whence it appears this sort of *Aq. Reg.* must yield to the other, in point of Efficacy and Virtue. In the Thirsts of *Hydropicks*, the said *Acid Spirit of Salt*, through it's penetrative Faculty doth excel all others, in Allaying and Conquering the Exiccative Quality of those fiery Salts, that are daily Meteorised to the upper Orifice, or supream Region of the Stomack, and there occasion those insatiable Droughts. There is a Subject of Admiration in the *Acid Spirit of Tartar*, considering there is nothing so Remote, or Abstruse in the Body of Man, but it will find out and Insinuate

ate into ; but what is more than this, contrary to the Nature of most *Acids* (whose Operation is universally by Urine) it's a great *Diaphoretique*, and provokes Sweat potently. *Antimony*, if like *Vitriol* it may be called the third part of an *Apothecaries* Shop, it's *Acid* Spirit merits the chief place in it ; for beyond all Peradventure, he that's unacquainted with this great *Acid*, is by some thought Ignorant, how to Cure a Malignant Feaver *è Fundamento*. The *Acid Spirit of Sulphur*, though usually termed the same with Spirit of *Vitriol*, hath that difference, that it contains a fixt Principle, whence it derives a power, to fix the most Fugitive of Minerals, which is denied to Spirit of *Vitriol*.

§. 3. Put to Illustrate this more plain, that some *Acids* are very different, and in a manner almost as contrary to each other, as an *Alcaly* is to them ; only make trial upon the *Magistery* of *Coral* or *Pearl*, which is commonly prepared, by their Dissolution in Spirit of *Vinegar*, (whereupon happens an Ebullition) Exhala-

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tion of the said Spirit, and Edulcoration; upon this *Magistery* affuse some different *Acid*, as Spirit of *Salt*, *Sulphur*, or any other, there will arrive another Ebullition, as smart, if not smarter than the former, but of a shorter continuance, which Evinces, there is a great Contrariety; as appears further in this particular, that one *Acid* will præcipitate, what's contained by Dissolution in the other. There is no less Contrariety between *Alcalies*, for *Sulphur* dissolved by a continued Ebullition in the Capitel or Lixive of *Calx viv.* is præcipitated by Urine. Any of the *Aromaticque* Oyls, be it of Cinamon, Cloves, &c. is Incrassated, and Coagulated into a thick Balsam, by affusing Spirit of *Sal Armoniac* to it, which is an infallible Character of Contrariety between them, and (by the way) is lookt upon as a great Secret, whereby a Balsam may be made without the Mixture of Wax, or Oyl of *Nutmegs*. Besides these, it is to be Remark'd, *Acids* are either Natural, or Corrupt. The former bears the part of a Constitutive Principle in all Natural

tural Bodies, though being prædominated by an *Alcaly*, or ballanced to a temperament *ad Justitiam*, is not exposed to be discovered by sense; but by a Chymical dissolution into their Elements, the *Acid* is ever discovered to Universal view to be one. All Salts, (not being Alcalious) though the *Acid* lies dormant and hidden in them, by the force of Fire through a Retort, do deprome their *Acid*; all sorts of Wood do exert the like *Acid*, being forced in the same manner through a Retort; which *Acid* before this *Analysis*, could not be deprehended in them by Taste or Scent. A strict Proof will not be required, I imagine, that there are some *Acids*, that are corrupt; Apples and Pears when they begin to Rot, smell and taste sour, and so do Flesh-meats, and most Artificial compound Liquids corrupting, as Beer, Syrups, Meathe, Broaths, and most sorts of Decoctions, also natural Compound Liquids, as Milk, Wine, &c. None of these *Acids*, but by any Naturalist will be termed Corrupt. But what is more, Bodies that are primarily *Acid*, are subject to be Converted into a corrupt *Acid*,

as appears in the Juice of Limons, Oranges, Pomgranates, and others, which being exposed to the Rays of the Sun, do decline into a corrupt *Acid*, far remote from their Natural.

The variety of *Acids* beyond this last inserted distinction, is great: *Acids* are either Pontique and Styptique, as some deep red Wines, *Vitriol*, and many Vitriolate Preparations; Acerbous, as immature Pears, Apples, Plumbs, &c. Austere, as some sort of Wines, that taste sour and harsh. There is also an *Acre-Acidum*; a sharp *Acid*, without any Stypticity or Austerity, as the *Acid* of Spirit of *Salt Marine*. In Mucilages is also a particular *Acid* to be observed, which may be termed *Acidum Mucilaginosum*. Some use may be made of describing *Acids* by names derived from *Acids* in Minerals, whereunto the *Acids* in the Body bear a proportion and resemblance, as in some it's remarkable, they experience a sour styptic taste upon their Tongues, not without some likeness to Copper, which may not improperly be called a *Nitriolat Acid*. In the same manner other *Acids* may
be

be termed nitrous, aluminous, &c. By the way I am to advertise, that I am not ignorant, that Natural Philosophers distinguish Tastes into acid, sharp, austere, &c. which here I do resume as kind of *Acids*; referring the truth thereof to the arbitrement of any ones sense; but those Naturalists following the umbrage of reason more than Notion, abstracted from *Experimental Philosophy*, no wonder they failed in this particular.

I must here divert my Reader from opinioning me to have deserted my line, in bringing on the board the nature and distinctions of *Acids*; which I affirm is no wise foreign to this matter; for it is from the premise I am to deduce and illustrate, there is in the humors of the Body discoverable a natural *Acid*; that they are subject to be converted into corrupt *Acids*; and the manner how.

If to all Physical Bodies there concurs an *Acid*, as a Constitutive Principle, whereby the *Alkali* is bound and coagulated into a body, it cannot be denied to the humors, which for further proof being mixed with Brick

dust, the Mass formed into Cakes, dried, and forced through a Retort, you shall find in the Recipient an *Acid* spirit of great Energy and Vertue in *Hydropick* Maladies. This is the natural *Acid* is Latent in Humors, and not to be discerned by Sense, because it is prædominated by the *Volatil Salt* being of an *Alcalious* Nature. To continue the $\sigma\tau\iota$, in the next place it's to be declared, the Humours, and particularly the *Chyme* is susceptible of a putrid *Acid*. The vulgar *Barber-Surgeons* and Bleeders, give their Testimony, that the Blood by *Phlebotomy* extracted out of several diseased Bodies, to their taste hath appeared Aluminous, Austere, and in some Scorbutiques very sensibly *Acid* or Sour; their Breath hath also expired a sour steam, and those *Tormina* or taring pains of the Guts, which Scorbuticks are so much exposed to, are sometimes caused by a *Pituita Acidula*, or Acid Phleam, terebrating the Tunics of the Guts. For brevity I do prætermit many other Arguments, inferring the Blood in Scorbuticks to be *Acid*, as the evident Derivation of

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Symptoms from an *Acid*, will in the process of this Discourse more amply Demonstrate; only in conclusion of this Paragraph, I do say, That if it be granted, that Milk doth oft turn sour and curdle in the Breast, it's as probable the Blood in the Vessels doth turn sour and Coagulous, they being in constitutive principles, but little different from one another. I cannot very well avoid animadverting on an Objection, that *Prima fronte* seems to carry some force, viz. That if the Blood be supposed *Acid* in the *Scorvey*, then all *Acid* Medicines must render the Blood more *Acid*, and the Disease worse, as is implied by that trite Theorem in Physick, *Similia similibus conservantur, & contraria contrariis curantur*; and consequently *Alcalies* should be furnished with a virtue, to subdue the said *Acid*, being their contrary. The pramitted dissertation contains as to this a very satisfactory Answer, wherein it is very perspicuously Exhibited, that many *Acids* are *è Diametro* contrary to one another, as according to the rule of contraries (*Contraria sese mutuo pellunt*)

lunt ex eodem subjecto) appears by the several Ebullitions (a sign of contrariety of two different *Acids*) in the above-mentioned Preparation of Magistery of *Pearl* or *Coral*: Wherefore most *Acids*, especially Spirit of *salt Marine*, Juice of Sorrel, Limons, Citrons, &c. are so deservedly extoll'd in some Scorbutick Distempers, and seconded with good success; though I must confess, they are most properly and chiefly useful in a *Lixivial Scorvey*.

The field of *Acids* is large; Therefore which of them this Scorbutick *Acid* doth most imitate, will be expedient to propose next. Upon perusing those Authors, that have treated on this Distemper, I find them so closely adhering to *similiis* abstracted from Wine and Vinegar, that I judge it a matter more facil, to draw a Drunkard out of a Tavern, than them from their course notions upon *Wine* and *Vinegar*. He that resembled Scorbutick Blood to Wine, that's turn'd *Ropy*, hug himself in that subtle Invention, and in the ample recompence of being applauded by the young *sucking Physicians*. This word *Ropy* is oft intended for siringy, or streaky,

ky, there being long streaks separated from the whole fluid Body, and floating in the thin liquor, as appears in Milk that's turned sour and grown *Roapy*: But such I could never yet observe in Scorbutick Blood, though I have examined a great number of Porringers. Blood that's tenacious, obductible and glutinous (which thence may be termed *pendulous*) I do very frequently meet with among Scorbuticks, but that's no other, then what flows in the Veins of most Cachecticks. The Cause assign'd (by my Author) of the Roapiness of the one and the other, is an over-fretting; wherefore, he saith, the *Scorvey* is oft subsequent to a continual Fever: And why not then to all Fevers, there being as much an over-fretting in the one as in the other? Whence this is the consequence, that all *Scorveys* are produced by Fevers, or Over-frettings; And what over-fretting of the Blood are Seamen and others subject to, that derive the Seminary of their *Scorvey* from the Salin Air of the Sea? I could never yet understand any. He proceeds, and would perswade you to believe, that
through

through this over-fretting, the *Sulphur* and Salts are separated from the Mass of the Blood, and being abandon'd to the Urine, render it Red like unto Blood; as if the Urin of all Scorbuticks were of that tincture. If this pretended Roapiness may be attributed to the Blood, it must be that, which is contained in the Vessels of the *Mesentery*, whence gross Humors are purged away in great Streaks and Ropes: But that it should be Streaky within the Vessels, because it appears so, when by Carthartick Physick its purged thence, *Non valet ratio*. For a farther Explanation upon Ropiness, I refer to Chapter II.

Others affirm, the Blood in the *Scorvey* to turn Acid like Vinegar. By the way, you must not apprehend the Blood to decline to the same Degree of Acidity Vinegar is of; for that must necessarily Infer a Total extinction of the Dogmatick Innate and Influent heat; but that it only recedes from its Dulcor and Sweetness, to a Crude Austerity and some small Acidity. It will not be out of purpose, to Examine how an Acidity is introduced
into

into Wine, and consequently becometh Vinegar; whence probably may be Extracted the Cause of Acidity in Scorbutic Blood. Peripatetique Philosophy asserts Wine to change into Vinegar by Putrefaction and Corruption. Putrefaction (being by some accounted only a tendency to Corruption) is Defined by the Stagirite a Corruption of the proper Natural heat in each moist Body, occasioned by a forreign Heat that's without. This applied to the Generation of Vinegar, infers that Sourness to proceed from an Extinction of the Natural heat or Spirit of Wine, by an External Heat. I cannot but admire here, that a Liquid Body should issue from a præceding Liquor by Putrefaction, and that without any *Fætor* or stinck, which is asserted to be an inseparable Accident; and what is more, that a Body should be engendred by Putrefaction, which of all others is the greatest præserver from Putrefaction; for such Vinegar is esteemed to be. Wherefore it's more Rational, and Consentaneous to Experiment, that Wine consists of *sixt Salt, Sulphur, Volati.*

Volatil Salt, and *Lymph*, or in the *Spagyrick* phrase, *Mercurius*. The *Fixt Salt* is the Acid *Tartar*; the *Volatil* (Incorporated with the *sulphur*) being dissolved into a small proportion of *Lymph* is the Spirit, which as long as it continues United with the *Fixt Salt*, doth obtuse the Acidity, and renders the whole Mixture sweet, as the Wine appears to the Palate, but being separated from it (as hath been hinted before) the Acid *Tartar* dissolved in the greater proportion of the *Lymph*, in effect is the Vinegar; so the way to make Vinegar, is to Abstract the Spirits or *Volatil Salt* from the Wine, by suffering it to Exhale, or by Exposing it to the Sun, or Heat of a Fire, which Attract the foresaid *Volatil Salt*, or by adding a small Measure of sharp Vinegar to a greater of Wine, which with an united force of the *Fixt Salt*, do soon Extinguish and Expel the *Volatil*, and then the prævailing remainder is Converted into Vinegar. The Method chiefly in use among the Vinegar-makers in *France* is this; They take two Barrels of a long shape, which there they call *Flutes*, and being

ing well cleansed, they put into each of them Four, Six, or Eight Quarts (according to the bigness of the Vessel) of the strongest and sharpest Vinegar, being made Boyling hot, and thereupon stop the Bung-hole very close, then they Roul and Move them to and fro for Six Hours together, until the Vinegar is grown cold, after this they run it out again, until there is not a Drop left, and then lodge the Barrels in a warm place, and fix them so, that they may lie fast and not stir; upon this they make two Holes (which they call the Eyes) in each of them with a Piercer, about a foot from the bottom, and pour into those Holes through a Funnel, some Eight or Ten Quarts of the best Vinegar, and a Week after they pour Two Quarts of Decayed Wine to it through the same Holes, to make Vinegar of, a Week after that they put as much more to it, and so every Week they add as much more to it, until the Barrels are a little more than half full, and then they encrease them every Four dayes, until they are quite fill'd, which they draw off to two Thirds,
for

for to Sell; and afterwards fill up their Flutes again gradually.

From whence I infer all Wines to be actually Vinegar, and Spirits, that is to be Physical Compounds, containing actually the Principles of Acidity in them, and *Volatil Salt* of an Alcalious Nature; and on the other hand I deny, That in *Vinegar* the Acidity is Introduced or wrought into it *per se*, by the Efficiency of the Sun or other Extraneous heat, but only *per accidens*, by separating the *Volatil* from the *Fixt Salt*, or Reducing it into it's Principles.

In the Generation of Vinegar there are several alterations observable, being Ascents and Degrees, tending to that extream Acidity Vinegar is of: In the first place, Wine changes to a Muddy and Turbid Countenance, loosing that Diaphaneity and æquality of Substance and Colour it had, because the Constitutive Particles have changed their Position and Situation; for in Wine that's declining towards the Eger, the *Volatil Salt*, which before had æqually expanded the *Fixt Acid Salt*, Exhaling or Receding,
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the said Fixt Salt doth somewhat Coagulate, and Unites nearer in its Particles, whereby this Obscurity and Turbation is Introduced. In this degree the Wine hath something changed its Taste, and Drinks flatter, but no kind of Sourness doth then appear; for though the Acid Salt seems to get ground upon the *Volatil*, it's not yet arrived to any mark of Acidity, because the aforesaid Acid is Commixt with a slimy dull Tartar, which Obtuses its Sourness, and is the principle Cause of the Obscurity and Turbidness in the Wine. It is not long after, that a little Sourness may be discovered by the Taste, and Turbidness observed to diminish; for as the Wine gains in Sourness, so it loseth in Obscurity, the Acid freeing it self from the slimy Tartar, præcipitates it to the bottom, or by Inciding and Attenuating it, dissolves it into Lymph, whereby it's Clarified and grows Pellucid, and consequently as it grows Soure so it grows Clearer, until it becomes perfect Vinegar, and then it's likewise grown perfectly Diaphanous.

Now

Now you may easily imagine, it is not my Scope, only to offer my Reader the Theory of Vinegar, or to Inform him, how to Arrive to be a *Vinegar-maker*, but by a way of Comparative (for Notions in Physick frequently spring from that Method) to the Blood, to Illustrate its manner of recess from it's Natural towards a Scorbutick Acidity. Wherefore first you are to apprehend, the Blood in its Native Constitution is sweet, or of the Qualification of a *Pingue Dulce*, it's nitorous or shining, of an æqual Temperament and Mixture, imagine *ad Justitiam*, and not Perturbated or Coagulated, but Fluid and Smooth; by reason of its *Volatil Salt* is so Penetrative, and Insinuating (though when it's Tapt out by *Ph'ebotomy*, appears thick) that *Quick-silver* the most Insinuating of all Minerals is Gross to it; for it's Observable, the Blood doth daily pierce to the most Intime and Remote Pores of the most compact parts of the Body, *viz. Bones, Membranes, &c.* Lastly, The Blood, though consisting of a Fat and Unctuous substance, the Taste of it is Smart and Piercing. It

It is in all these and more particulars the Blood in *scorbuticks* doth undergo an Alteration. I shall begin with a short Comment upon its Acidity, unto which it gradually recedes from its Natural sweetness; but the kinds of Acids being many, it's requisite to assign, which of them this Distemper is grounded on.

The *Volatil Salt* of the *Blood* suffering any impair by depravation, diminution, or extinction, the natural *Acidity* of the said *Nutritive Liquor*, doth acquire a prædominance, or sometimes an absolute power, in the same manner as was asserted above, touching the change of Wine into Vinegar. If obtaining a prævalence, renders the state of health neutral, but if by conquest it hath got an absolute power, denotes the temperature and mixture of the Mass of Blood dissolved, which onely happeneth in those, that die of old age. But supposing, that upon the affection of the *Volatil Salt*, the natural *Acid* lieth exposed to injuries (read *Chap. II.*) which during the intimate *Vinculum* of both, it was defended from; then the forefaid *Acid* degenerates

rates from its natural into a vitiated, putrid, or corrupt *Acid*, which *ipso facto* doth constitute a disease. This premised, I assert, that a recent, or confirmed *Scorvey* is the adequate effect of a putrid *Acid*; The others, namely austere, or pontique, are causes onely of melancholy, hypochondriac and mesaraic distempers. Proof hereof may very well be made by arguments, desumed from the effects, that issue from the causality of a putrid *Acid*. First we will examine the blood of *Scorbuticks*, which upon view I have frequently remarked, to be of a dull countenance, and in no wise nitorous, of colour livid, or sometimes cineritious, or in others resembling the whites of Eggs, interspersed with opaque streaks; in point of consistency thick, coherent, globated and tenacious, being also overflowed with a turbid serosity, of gust palpably acid, and here and there a nitrous *Acid*, both in scent and taste, and at no time gratefully acid; in initiated *Scorbuticks* the serosity discovers a crude, austere, or sometimes pontique *Acid*. The evidence here

is strong, being demonstrable to one of the surest Senses, *viz.* the Taste, and that desumed from the *Serum*; which by reason of the Salts and Tincture it extracts from the humors, affords a most pręnant discovery of the constitution and complexion of the Blood. But we shall insist no longer on that sense, but convert our discourse to experiment; instil a few drops of Spirits consisting of a *Volatil Salt* (*viz.* Spirit of *Sal Armoniac*, *Cornu Cervi*, Soot, &c.) into a small proportion of Blood; their effect will render it fluid, nitorous, serene, of a most pleasing red, and rescue it from a dissolution of the Humors: But on the other hand, *Acid* drops, *viz.* of *Nitre*, *salt*, &c. occasion immediately a Coagulation of the said Humors, and a separation of their *serum*, leaving those in a turbid commixture, dull, opaque, cineritious, and of an ill whitish steam colour. Whence we may rationally pręsume, Scorbutick Blood so exactly resembling what is impressed on any other Blood by these *Acids* *Spirits*, to derive its vitiated constitution from an *Acid*,

which must necessarily be a putrid one, as shall be explained hereafter. In the next place, let's make Inspection into the Characters of Scorbutick Urin, which for consistency is uncertain, most times muddy, turbid and thick, sometimes thin and opaque; for colour pale and whitish, though in some few of a raw bloody colour, like water, where raw flesh hath been washt in; for contents various, sometimes a copious sediment of an Ash colour, with a scum swimming on the surface like Tallow, other times a small sediment. By scent is detected a particular stinck, not like what's expired from other Urin. The causality of these qualities in the fore-mentioned Urin doth lie between an Alcalious Lixivial Salt, and an *Acid* Salt. The first contributes a muddy deep yellow, and sometimes a saturated red tincture to the Urin, and therefore relating to some inveterate *Scorvey*, doth consequently lodge the faculty of engendering a Scorbutick Urin of a recent Distemper in the latter, *viz.* an *Acid* Salt. Moreover, the same Experiment of Instillation of different drops
into

into *Urine*, produces the same evidence it did upon the *Blood*. That this *Scorbutick Acid* is putrid, appears by its production and inseparable adhaerence of a stink, for which a sufficient testimony may be taken from the breath of *Scorbutics*, the steams that evaporate from their Bodies, the ill scent of the *Serum* of the *Blood* and *Urine*, which all stink abundantly. To make at present any further conviction, that a *Putrid Acid* is the internal cause of the *Scorvey*, by deriving any more Symptoms from its efficiency, will be superfluous, in regard, that will be singularly explained in the particular mention we shall make of them. The cause of a *Putrid Acid* shall be proposed in *Chap. II.*

CHAP. VII.

Of the Procatardic or External Causes of the Mouth-Scorvey.

1. *That Mercury frequently used, proves ordinarily an occasional cause of the Mouth-Scorvey.*
2. *That a Salin Air and Salt Diet are the principal external Causes of the Scorvey.*
3. *Whether a Salin Air or Salt Diet be the more principal Cause.*
4. *How Salt Meats cause an Acidity in the Blood.*
5. *That the Drink brewed about London is brackish.*
6. *That Gluttony and Debauchery are two grand scorbutique Abettors.*
7. *How the other Non-naturals contribute to the engendring the Scorvey.*

§. 1. **A** Salivation excited by *Mercurials*, and accompanied with its usual attendants, is beyond all peradventure a *Mouth-Scorvey*; and for that reason *Hartman* and other *Chy-*

Chymical Authors, affirm *Mercurial Medicines* pernicious, and altogether improper in *Scorbutique Distempers*; and consecutively to this Assertion, I have fræquently observed, that such as have been obliged to make use of *Mercurial Remedies* against their *Vene-real Maladies*, do ordinarily fall into the *Scorvey*, which sometimes proves more stubborn than the Distemper, which the said Mercurials were intended against; So that we must set down *Mercury*, to be one among the number of occasional Causes of the *Scorvey*.

§. 2. Gross saculent and obstructive Diet, especially if overcharged with Salt, or rendred hard and compact with Smoke, as dried Neats Tongues, Bacon, Sausiges, Red Herrings, Dried Salmon, Hung Beef, &c. do not only contribute matter, but obtain also a peculiar faculty of impressing a *Scorbutic Idea* on it. Of the same nature are Melancholic Meats, as Beef, Pork, Geese, Ducks, Salt Fish, and all other Fish, that are bred in standing Waters, as Eels and others; also Pick-

led and Marinaded Fish, as Pickled Herrings, Anchovies, &c. The next of the *Non-naturals*, that bears a great part in this morbidique production, is a Salin Air, rendred thick and constipative by Vapors and Damps, Nitrous Evaporations out of the Earth, filled with putrid steams of Sinks, Gutters, Ditches, Muddy and Dirty Streets, and Sulphurous Smokes of Chimneys, stagnating and pent up between narrow lanes and corners, and seldom serenated or purified by the rayes of a clear shining Sun, nor frequently ventilated with Easterly breezes; and such is the Clime of *London*, where the Air is experienced close, dull, damp, salin and muddy, over-spread with dense, dark, salin Clouds (attracted out of the Sea) for two third parts, if not three fourths of the year; during which time the wind seldom blows Easterly, or is favored with a smiling Sun.

§. 3. These two are accounted the principal external Causes; the former aggressing the Body within, the latter without; but to which of these the
sole

sole causality may be imputed, hath been controverted between some Modern Authors, the one party, whose opinion induceth them to believe the Scorbut to make its first assault on the Blood and Animal Liquor, by entering the external pores, state the Air the chief and original efficient: The other, apprehending the Stomach and its Ferment, to receive the first efforts, proclaim Diet the principal Agent. In favor of the former sentiment, these arguments seem persuasive, 1. The *Scorvey* being assented by most an Endemick Disease, which generally derives its production from the Constitution of the Clime, infers a verdict for the Air: and, 2. This is further confirmed, by being also æsteemed among the number of Contagious Maladies, which are universally communicated by Transportation of morbi-
fique Miasms, whereof necessarily the Air must be the chief Vehicle, and consequently a more principal cause than the other. 3. Symptoms bearing Characters more obvious to sense, offer an evidence very plain; wherefore if the Animal Faculty be the first sufferer,

ferer, as appears by the Symptoms, viz. Lassitude, Drowsiness, Noise in the Ears, &c. and that the said Symptoms of Lassitude, &c. be perceived by the Patient, while his Stomach and its Ferment continue in their vigor, and exempted from any prater-natural affection, then it's undeniable, but the Air is the primar Agent. Those who espouse the contrary arbitrement, assert the faculty of the Stomach to be impaired, and next after the Blood to be vitiated, before the appearance of any Lassitude, or other Animal Symptom; moreover, that the word *Endemic*, importing only a common Disease among people (from *ἐν* and *δημιος*) doth not exclude the generation of a Disease to be from a Viti-ated Diet, or any other *Non natural*. Touching its contagion, they affirm a Disease may be primarily engendred within the Entrails, and afterwards prove contagious: But lastly, whether the decision hereof be any whit material, in relation to the Cure, is left to the Reader.

§. 4. The next circumstance that's worthy of inquiry, is the manner, how a Viciate Diet, or impure Air, doth cause an Acidity in the Humors. We will suppose, That a *Salt Diet* * is the most common Efficient of the *Scorvey*, which being ingested into the Stomach, doth chiefly act on the *Nervorum*, consisting in a great proportion of *Volatil Salt* (whose office principally is, by contraction of the Fibres to corrugate the Stomach) and Spirits of the Arteries. It is then this extraneous Marin Salt, that attracts and absorbes the foresaid *Volatil Salts*, with the liquor they are contained in, in great measures; and hereupon occasioning a great Drought, forceth the Stomach to covet vast quantities of Small Drink; whereby the Stomach is immoderately cooled and relaxt; the foresaid *Volatil Salts* rendred fixt, and *Spirits* drowned and extinguishd; moreover the said *Extraneous Salt* having absorbed and attracted the *Volatil Salts* into its Centrals, they meet with the *Acid*, that's latent in its Bowels (as appears upon driving

* i.e. Salt Meat, and Brackish Drink.

driving *Salt Marin* through a Retort) which through its contrariety to *Alcalies*, amortises the fore-mentioned *Volatils*. The consequence upon this is, that the digestion is not perfected, and the contents not justly dissolved and coæquated, but remain crude and imperfect, whence must happen Crudities and Obstructions, which afterwards prove a *Basis* for all other Diseases to be establisht on.

§. 5. It is not to *Salt*, or other unwholsom Meats, we must solely ascribe this Scorbutick Effect, but lay part of the charge on Drinks, that are used among us; in particular the Beer and Ale that's brewed about the City; the Water whereout they are brewed being absolutely brackish, or imbued with a proportion of *Salt*, though not so great as to be discovered by the Pallat. That Water containing a Tincture of Salt, is thereby capacitated to make the stronger Drink, is most certain, and for that reason, because the Water being somewhat brackish in *England*, and therefore making the strongest Liquor, it's thence *English*

Beer

Beer is reputed the best and strongest in other Countries. Consequently to this Remarque, I find, that Beer or Ale brewed out of *Thames Water*, is more vigorous and spirituons, than what is made of other Water, because the former by having a commerce with the Sea, is more Salin; and thence it is also that *North-down* and *Hull-Ale* exceed *Thames-Ale* in strength, as being nearer to the Sea. This may likewise be confirmed by the practice of some Brewers, who to render their Drink the stronger, do commonly fling some small quantities of Salt into their Brewing; wherein exceeding sometimes a due proportion, doth impress so great a seasoning on their Beer or Ale, that it's manifestly perceived brackish by those that drink it. The reason of this sort of process is grounded on the insinuating and attractive Vertues of *Salt*, attracting the intire life and soul out of the Malt. Neither are Chymists ignorant of these attractive faculties, who when they are to extract a Spirit or Oyl out of Aromatics or Cephalic Herbs, generally dissolve a handful

or

or two of Salt into the Water, while it's in digestion. *Apothecaries* do also experience, that *Roses* lying a few dayes in Salt, yield a water much more odoriferous, than if Distill'd off simple. These Instances are produced to make proof, that the water of *London* is Salin, and consequently highly Scorbutick. But probably an Objection may be started, that though *Thames* Water from its communication with the Sea, may be suspected Salin, Why should other Waters where-out Drink is also Brewed, be esteemed so? To this I answer, That the Air of the City being perfused with salt Clouds, attracted out of the Sea, (which is no great distance thence) doth sufficiently imbue it with that Tincture: Moreover, the Earth over which those Waters stream, contributes to it a Saltness, being brackish, as may appear to any ones Gust, that will adventure to taste it; now that Clay Ground, and other sorts of earth, do exude or sweat out a *salsugo*, or Saltness, is abundantly manifested in Salt Pits; and undoubtedly the Pit-water which *Cæsars* Army made use

use of for two Years together, when they were quartered near the *Rhine*, sourced from a salt Pit, though not so much Impragnated, as to be distinguished by the Palat, or at least the foresaid Water was imbued with some Mercurial Vapours (but the former is more probable) which afterwards gave them a Disease like the *Mouth-Scorvey*; they being subject to a Vacillation and elaps of their teeth, with pains of their Gums. One sort of Water we have not yet taken notice of, which is of standing Pools, as that is reported, whereout that Liquor is Brewed, which goeth by the name of *Shoreditch Ale*, for strength being Superlative to all other. No doubt but Water by stagnating, doth contract a Putrefaction and Saltness, which being thorowly allayed with the Cream of a fat brackish Clay, is naturally prepared to Brew thick fat Ale; whence that Water is vulgarly termed strong bodied, whereas Spring water is accounted thin weak Water, and not capable to Extract the intire strength of the Malt, as the other is; which is true enough spoken. This Dis-

Discourse doth also infer four Beer, or Ale, to be very pernicious, likewise decayed Wines:

§. 6: Among the next relating to both the præceding Branches, we must impeach *Gluttony* and *Debauchery*, for two grand Scorbutick Abettors. The former by imposing too great a burden on the Stomack; doth so much obtuse the *Volatil Salts*, that the *Acid* thereby gaining a prædominance, and thereupon soon growing putrid, occasioneth Crudities and Obstructions, and so an Inlet to the *Scorvey*. The latter refers to excess of Drinking strong Liquors, particularly *French Wines*, through which the Stomack suffering frequent inundations, their Spirituous and Volatil particles are attracted Crude, and Undigested into the Vessels, which in a short interval of time, Obnubilate and Drown the *Volatil Salts* of the Nerves and Arteries, as not being sufficiently præpared to be Assimilated to them; and these Efforts being oft repeated, do at last Vitiate, Evaporate, and Amortize the Spirits.

On

On the other hand, the Liquor that's remaining in the Stomack, is left Acid and Acrimonious, in the same manner as was Instanced in the making of Vinegar.

6. 7. From what is here Discourfed, relating to the manner of a Salin Diet occasioning a *Scorvey*, may easily be Collected, how a Salin Air operates the same effect, *viz.* By entering the External Pores, and being inspired down by the Lungs, doth assault the Vital and Animal Spirits and Salts. 2. By contracting the Pores through its Exiccative and Absorbing quality, and constipating them by its grossness and crassitude of substance, whereby reverberating and locking up within the Body the fuliginous steams, that stifle or smother the Spirits, and fixe the *Volatil Salts*, in manner, that they assume the Nature and Quality of a *Marine Salt*.

Touching the remaining Non-naturals, *viz.* *Motion* and *Rest*, *sleep* and *Wakefulness*, *Excretions* and *Retentions*, and the *Passions* of the Mind, though they come not within the no-

tion of Primar sole Efficients, yet do potently contribute to the production of the *Scorvey*, by as much as by their inordinate use, they aggress, vitiate, diminish, and extinguish the *Volatils*, and give an increment to the *Acid*; which how it's effected, may easily be deduced from the præmisses. To these adde a Melancholic Complexion and ill Constitution of the Bowels, especially of the Spleen; also Fevers continual and intermittent, particularly a Quartan, which doth frequently expatiate into the *Scorvey*, *cæteris concurrentibus*.

Upon this præliminated Explication a decisive touching the controversy in *Par. vii.* may easily be attempted; *viz.* That both can be admitted principal Efficients in the *Scorvey*; for many though observing the exact Rules of Diet, have notwithstanding by living in a Salin Air, contracted the *Scorvey*, which as hath been copiously expounded, is sufficiently qualified to produce the *Distempers* forementioned. Moreover those that derive the *Scorvey* from a Contagion (which hath been oft observed) do attract

tract the Scorbutic Seminaries and Miasms through the Air, without the least concurrence of Diet, as having been regular and wholsom. On the other part, a *Salt Diet* continued for some proportionable time, hath engendered the *Scorvey* in such places, where the Air could not be suspected ill, and of this there are examples numerous enough; but waving that, I will evidence it in a præident, that is more frequent, and of a shorter production. *Drunkennes* in such whose Blood is not apt to be kindled into a Fevor, hath in a short interval occasioned an universal lassitude and weakness in the Knees, Spots and Blotches about the Legs and other parts of the Body, laxity, discoloration, and soreness of Gums, pain and looseness of the Teeth, a sour stinck of Breath, &c. which Symptoms do plainly declare it to be the *Scorvey*, and that produced without the suspicion of an ill Air. So that either may be esteemed a principal efficient, though where both do concur as principals, there it occasions the *Scorvey* to be *Endemic*; but where it is contracted from either singly, there it's *Sporadic*.

CHAP. VIII.

Of a second different internal Cause, being the cause of some Leg-Scorveys, and many or most Terminatory Scorveys; namely Saponary Blood.

1. *Instance, That there are two sorts of Causes (contrary to each other) of the Scorvey.*
2. *The Constitution of the Blood in an Alcalious Scorvey.*
3. *The Error of Sennertus and others in asserting the Cause of Roapy Blood.*
4. *The true Cause of Roapy Blood.*
5. *Proof by Experiment of the Lixivial Constitution of the Blood in the Scorvey; and why the Blood is termed Saponary.*

§. I. **T**He Tenor of the next preceding Chapter implies a *Putrid Acid*, predominating over the *Volatil Salt*, to be a cause of one sort

sort of *Scorvey* ; here we intend to propose a *Scorvey* different from that, wherein the *Volatil Salt* being vitiated and augmented in too great a proportion, over-ballanceth the *Natural Acid*, and produceth a Constitution of Salts and Humors, likewise Symptoms, that are absolutely Scorbutique, but of a fiercer and more malignant quality. By the way, I must pravent my Reader from any hæsitiation, wherein it may appear strange to him, that Symptoms that bear the same countenance, should be derived from two contrarily different Causes. As to this, it is an Observation evident enough in other Diseases; for instance the Colick is sometimes occasioned by Bilious Lixivious Humors, corroding the internal Tunic of the Guts, in which case they usually suffer a Contraction *in longitudine* ; sometimes it's caused by an Acid flatuous phlegmatic Humor, and here the Guts are affected *in latitudine*. On the former is imposed the name of an *Hot Colic*, and on the latter a *Cold Colick* ; the same may be also observed in Pleurifies and many other Distempers.

§. 2. The Constitution of the Blood in this kind of *Scorvey* is far different from what it is in the other ; for here the Blood runneth into a thick coherent Fluor, like Syrup, doth not coagulate or concrease ; but continueth in the same form, without the separation of the *Serum*, that in the other commonly floats on the top. The difference is likewise in colour and taste; here the Blood appears in a purple, and to the taste its Lixivial and Acrimonious. Touching the Symptoms; the *Acid Scorvey* exercises its fury most on the parts above the Navil, the *Alcalious Scorvey*, chiefly on the parts below ; what farther distinction is remarkable, you shall read elsewhere.

§. 3. Certainly it was a great Halucination in *Sennertus*, but far greater in others, that have wrote since on that Subject, to prætend an *Acid* the cause of *Pendulous Blood* (a term the Recentiors have borrowed from the fore-named *Sennertus*, though ill verted into English *Roapy*, as hath been animadverted before) which rather
causeth

causeth a Coagulation, as appears by Experiment, upon instilling Acid drops into Blood or Milk; and yet this *Acid* is so abominably stretcht by a late Author, who obtaining a particular knack of writing a Story smoothly, doth endeavor to adaptate it to Symptoms in general of all sorts of *Scorvey*; whence I find, neither he nor those that harbour his Notion do arrive to a success of curing some *Leg-Scorveys*, æqual to that of the *Mouth-Scorvey*, but are oft render'd infinitely worse.

§. 4. The cause of this thick incrassated coherent Blood, that if poured into a Porringer, hangs in short ropes or long drops, like Balsom or liquid Soap, when poured off, I impute to the fixation of the *Volatil*, which united to the Fixt Salt of the Blood, doth alcalize and calcine it, whence assuming the nature of other Calcined Salts (as *Salt of Tartar* and *Nitrum fixum*) doth attract and absorb the *Serum* of the Blood, and some moisture out of the Air, whereby that and the whole mass is turned into a *Deliquium*, and so becometh

thick (the *Serum* being absorbed) coherent and pendulous ; because part of the Blood is naturally glutinous, which being tied closer together in its particles by the absorption of the thinner and serous parts, must needs prove pendulous ; of a taste lixivious, because such all Calcined Salts appear to the Palat ; and of a purple colour, because the Blood is adusted from a florid red into blackness.

§. 5. That the Blood of these Scorbutics, which are here mentioned, is qualified in the manner described, will appear to any, that shall give themselves the trouble of examining Scorbutick Blood, when occasionally extracted by Phlebotomy ; but least such as desire to be satisfied in this point, have not a ready opportunity of examination, we will endeavor to convince them of this truth by experiment. Take Blood that's sound, and possibly extracted for prevention or abating a Plethory, instil into it Spirit of *Sal Armoniac*, or of any other *Volatil Salt*, it shall preserve it in its flavor, colour, consistency, mixture and

and other qualities, until it be evaporated, and then the said Blood by coagulating into a Mass, will separate from its *Serum*: But if instead of this, you affuse a small quantity of Calcin'd Fixed Salt, that's runned into a *Deliquium*, it will incrassate the Blood, change it into a deep purple, render it pendulous and lixivial to the taste. After all, proving the particular Symptoms to issue thence as proper immediate effects, will crave an undeniable conclusion; but that shall be referred to a further inroad into this Discourse. I must not retire from this Subject, before I give the reason, why I have named this sort of *Scorbutic Blood*, *Soapy*, or *Saponary*; namely, because like *Soap* consisting of *Tallow* and *Lixivial Salt*, the Blood in this kind of *Scorvey*, is also composed of a deflagrated incrassated *Sulphur* and a *Lixivial Salt*, both commixt and united into one Body; but how and through what causes it is rendred so *Soapy*, shall be told you in the next Chapter.

CHAP. IX.

*Of the Procatartetic Causes of
Lixivial Alcalized Salt,
in Scorbutique Blood.*

1. *That Volatil Salt is nothing but Fixt Salt volatilized by the commixture of Sulphureous Particles is proved by Experiment. The manner how a Volatil Salt is fixable.*
2. *The remote Causes of Saponary Blood.*
3. *That Salt is capable to produce two contrary effects, viz. an Acid and an Alkali.*
4. *A farther proof of the Saponary Synthesis of Scorbutic Blood.*

§. I. **T**HE *Fixt Salt* of the Humors is the Original and Conservative of the *Volatil*, for (according to one of the Hermetick Theorems formerly recited) a *Subtil Sulphur* penetrating into the pores of the *Fixt Salt*, closely knits it self with its particles, and being of a subliming nature, that is derived from the igneous

igneous minims it contains, doth levitate, sublime, and volatilize the said Salt. Experiment doth assert this a certain truth; affuse *Spirit of Wine* on *Calx Vive* (which beyond all Objection is pregnant of *Fixt Salt*) after a short digestion, abstract it, and some part of the *Fixt Salt* will be volatilised and sublimed with the *Sulphur* of the foresaid Spirit. Possibly here may be demanded, how doth it appear any of the *Fixt Salt* is volatilized? Hereunto I answer, 1. By the Taste, the foresaid Spirit proving more igneous, vibrating and pungitive to the Tongue. 2. *Spirit of Wine*, by reason of its *Sulphur*, is inflamable to the last drop; but being united to this *Volatilized Salt*, doth very difficultly receive a flame, or when inflamed, will scarce continue. One Experiment being too scanty, I will offer you another. *Volatil Salt of Amber* is fixed by abstracting *Spirit of Salt* from it; and being so fixt, affuse on it *spirit of Wine*, digest them a while, and then abstract the *Spirit of Wine* from it, and you shall find the *Fixt Salt* volatilized again. Hence I infer,

infer, 1. That the *Fixt Salt* is not only the original matter, but also the sole conservative and nourisher of the *Volatil*, by yielding new sublimable parts. 2. That the Constituent principles of a *Volatil Salt* are a *Sulphur* and a *Fixt Salt*. This being allowed or at least præsupposed, doth detect the manner, How a *Volatil Salt* is fixable, viz. by divelling the *Sulphur* from it, or stripping it of its force and efficacy; so that those externals that act against the foresaid *Sulphur*, are to be æsteemed the Procatactic Causes of rendering the Blood Scorbatic, and of lixiviating its *Fixt Salt*.

§. 2. The same remote Causes, which in one of the præcedent Chapters were declared Efficient of a *Pu-trid Acid*, are also impowered to lixiviate and alcalize the *Fixt Salt* of the *Blood*, though not in the same manner, or univocally, but *per accidens*, and æquivocally; so the Sun is virtuated to produce contrary effects æquivocally, in engendring Cold and Hot Bodies, moist and dry. A Salin Diet and Salin Air, by vertue of their *Salt Marin*,

Marin, do absorb and concentrate the Sulphurous minims of the Blood, which being inflamed, and rendred corroding, partly through its own nature, partly by its union and amplex of the Saline parts, and being withal thereby *Fixt*, are both præcipated to the *Fixt Salt* of the *Blood*, whereunto also uniting, do all become Soapy and Lixivial. Secondly, The *Fuliginous Salts*, that are too copiously occasioned in Saline Scorbutic ebullitions, are a principal cause, but for a more ample satisfaction I refer you to Chap. . How greatly the familiar sipping of Brandy and other adust Spirits, do contribute to the inflaming the Sulphurous particles of the Blood and lixiviating of it, is sufficiently obvious; likewise that fuming Tobacco, under the notion of concentrating and fixing the Sulphurous and Volatil particles, doth lixivate and fix the Blood, needs no farther proof.]

§. 3. Least I should leave the least scruple, that might induce the Reader, to suspect the contents of this Discourse,

I apprehend it expedient, to remove this Objection, which is offered by way of Quarry, How can a Salt Diet or Air, or rather Sea Salt, occasion two contrary effects, viz. of rendring the Blood Acid, and Lixivial or Alcalious. I hinted before, that these effects are derived in a various manner, to wit, an *Acidity* is caused, as was explain'd formerly, by the separation of the *Volatile Salt* and *Subtil Sulphur*, which is an effect *per accidens*; an *Alkali* is impressed on the *Salt* of the *Blood*, by an effect the *Marin Salt* produces *per se*; for through its igneous faculty, and especially when it tumid with the absorbing the *Sulphur* of the *Blood*, it alcalizes the *Fixt Salt*.

2. The fore-mentioned *Marin Salt* is not only naturally fiery, but vigorously augmented in its igneous quality, by its conjunction with *Lixivious Salt*, or *Excrementitious Choler*, that naturally ought to be separated and evacuated by the *Gall Bladder* and *Cholidochus*, whose passages in a confirmed *Leg-Scorvey* are commonly for a time constipated, the Excrements of the

the Guts through their paleness and *livor* signifying as much; but withal observe, that the *Cystis Bilis* and *Ductus Cholidochus* continue obserated only for a certain space; for afterwards the foresaid passages are forced open, by the abundance of gross lixivial Choler, which then impresses a deep red Tincture on the Excrements of the Guts. Furthermore observe, That commonly the *Month-Scorvey* pracedes a *Leg-Scorvey*, and seldom do both invade the Body at the same time, but one upon the neck of the other; so that if the *Month-Scorvey* continue any considerable space, the *Leg-Scorvey* must necessarily follow.

§. 4. Observe likewise, That some continual and intermittent Fevors, especially Quartans, do sometimes exchange into *Alcalions*, but no *Acid Scorveys*, as by their internal Causes and Symptoms, which the deep red Tincture and vehement stink both in Urine and Ordure, likewise a very saline Sweat and Spittle, do attest lixivial, is evidently declared; and that which
doth

doth positively evict the cause of these kinds of Scorbutts to be *Alcalious* and *Saponary*, is their Cure, which is chiefly to be performed by *Acids*, as *Spirit of Salt*, *Antimony*, &c. and by *Subtil Sulphurs*, and *Volatil Salts*; but in no manner by *Fixt Alcalies*, upon which an irreparable detriment hath oft ensued. Lastly, To prove the undeniable truth of these Observations, the vulgar management of Sea-men (who are out upon long Voyages) in their *Scorveys*, which so inevitably they are incident into, using nothing but *Acids*, as *Spirit of Salt*, *Juices of Oranges* and *Lemons*, wherewith they are abundantly stored, tells us, it's an *Alcalious Saponary Scorvey* they are subject to, against which an *Acid* is the diametrically contrary Remedy.

CHAP. X.

*Comprizing the Examination
of Scorbutic Principles
proposed by a late Author.*

1. *The Summary of the learned Oxonian Authors Treatise on the Scorvey recited, and proved erroneous. That Scorbutic Blood is neither Rancid nor Roapy in the sense intended by the Oxonian.* 2. *A recital of several absurdities necessarily ensuing on the concession of the Hypothesis offered by the foresaid Author.* 3. *That Roapiness in the Blood is not occasioned by the commixture of a lesser proportion of Sulphur with a greater of Acid Salt.*

§. 1. **A** Gainst what is asserted in the two last preceding Chapters, nothing of moment can be farther objected, than the authority of our *Oxonian Author*, who for his learning, concise, smooth and elegant mode of Writing, may justly be characterized

racterized the English *Fernelius*, esteeming withall, that he hath in some sense surpassed *Engelen*, *Salomon Albertus*, *Wierus*, *Sennertus*, and the rest, that have treated on the Subject of the *Scorbut*; and among those his other superlative qualifications, I must also take notice of his Modesty, not peremptorily asserting, but like a *Cartesius* affirming only a probability of that, whereon his whole subsequent Discourse is grounded as its *Basis*; *Tract. 2. de Scorbuto*, *Edit. Amsterd.* fol. 230. where the words run thus, *It's probable, that the Blood in the Scorbutic affection is altered, in a manner not unlike Wines, that grow Rancid or Roapy, as oft as they are overheated (that is over-fretted) for this is an Argument, that that Disease doth not depend so much upon Dregs, mixt with the Blood, as on a habitual intemperament of the Blood; because a Radicated Scorvey is so difficultly cured, and sometimes never. Moreover it may be stated, that the intemperament of the Blood, which is the parent of the Scorvey, is two-fold, as it is in Wine, namely Sulphurous and Salin,*
and

and Salin and Sulphurous. The whole Theory of the *Scorvey* is by the Author fore-mentioned briefly summed up in those few lines; which to examine, is the chief affair of this Chapter. First, He tells us, *It's probable*; But why is it probable? Because probably it seemed so in some inconsiderable little Analogies and Resemblances: I may as well affirm, that it is probable, his Horse is a Mare, because viewing him at a distance, he seems like one. Certainly, he that by too much stretching of the Cloth, endeavors to make all sorts of Habits and Shapes out of it, must necessarily make a very incongruous Suit. This our Author hath practised in most of his Tracts, abstracting Notions from Wine to illustrate his Theory of Diseases; as first in relation to Fevors; Because Wine is apt to be fretted, it's probable the Blood is also subject to a fret; whence a necessary conclusion is drawn, *That the Blood so fretting is either a Fever, or rather the cause of a Fever*; but *A probabili ad necessarium non valet consequentia.* Neither doth the similitude *quadrate*, the one

being a derivative from a Vegetable, that naturally is disposed to the fore-said alteration; the other from a *Vive Animal*, that when declining into a Fevor, is praternaturally affected. Moreover this fretting quality that Wines are incident into, is only of one kind; but the frets or fevors of the Blood are various and very different, as Quotidians, Tertians, Quartans, &c. Secondly, In relation to Convulsions, Because the Blood is disposed to fret in all the Vessels of the Body, it's probable, that in the fretting of the Nervous System, it doth impel heterogeneous *Copula's* and Explosive Particles into the *Liquor Nervosus*, and irritate the Nervous Systeme to an explosive motion, through which a *Spasmodic affection* and a praternatural *Diatheſis* of the Brain, are occasioned. A pretty kind of Rhetorick, exchanging the old significant terms, into those that are obscure and equivocal; however these *Probables* might very well be admitted, especially being garnished with those pretty affected Phrases; provided the *Phænomenon* and resemblance were somewhat more parallel,

lel, and conform to Experiment ; from which that they are infinitely different, I shall particularly instance in the comparison of *Rancid* and *Roapy*, or rather *Scorbutic Wine* (for such he would have it to be) with *Scorbutic Acid* and *Scorbutic Lixivial*, and *Saponary Blood*. That Wines by over-fretting become rancid, is agreed on by all Wine-Coopers, which in their usual phrase, they do not term *rancid*, but say, *It tastes of the fret*, that is, Fuliginous, Empyreumatic, and Piquant, but not Acid ; neither when they are over-fretted as much as they can be, do they immediately taste otherwise than what is set down. Their Cure is performed, as he sets forth, by being drawn off the Lees ; which in a plainer way is to be understood thus ; if it be observed, that Wines are inclined to frequent frettings, or over-frettings, as all Wines are in the Summer season, especially if lying in a warm Cellar, to prævent the former, they endeavor to cool the place, where they lie, by stopping up all the Lights, and oft dashing cold water over the Floor. The later, *viz.* Their

aptness to over-fret, is remedied by pouring a proportion of new Milk to the Wine, or Ison-glass dissolved, or other materials that are impowered to appease, allay and sweeten the heat and fury of the Sulphurous Spirits; but when Wines are absolutely over-fretted, then indeed to draw them off the Lee, is the next remedy. The cause of an over-fret or rancidness, he asserts to be an imbodying or cogulation of the Sulphureous particles with the Salin, so as the former exceed the latter in proportion. This *Ætiology* may easily conduct the Reader into mistakes, supposing the Constitutive Principles of Wine, viz. The *sal*, *Sulphur*, and *Mercury*, to be distinctly contained therein, whereas it must be conceived, they are so intimately cemented together in their minimal particles, that there is not the least drop, but contains the foresaid principles in its least individual physical particle, so that you are not to imagine, that in Wine, that is thus declining, the *Sulphur* swims in one part, the *Spirits* in another, and the *Salt* in another, but that the Subtiler *Salt*, *Sulphur*, and *Mercury*

Mercury, being united into one, do abscede from the grosser, into whose room and cavernicles external heterogeneous principles succeeding out of the ambient air, occasion such various alterations, as render the Wine rancid, roapy, &c. Those Heterogeneous Corpuscles, if they are sulphurous, as in the Summer season they generally are, then they alterate the Wine into *rancid*; if more gross and salin, as at other seasons they are, it becomes *roapy*. But Wines being subject to these alterations in all Climes, and Humane Bodies onely in some particular sorts of Air, which therefore (together with a vitious diet) render the Diseases thereof *Endemic*; this alone is an Argument sufficient to evince the Alterations of the Blood and Wine not to be comparative, and consequently the *Simile* to be dissonant. Secondly, Suppose the *Simile* allowed in Fevors, that as Wines fretting are indued with an intense heat, through the exaltation of their *sulphur*, so the Blood fretting is attended with a dyscratic or intemperate heat, which for the present shall

also be allowed the name of a Fever; then consequently the Blood must be deemed Scorbutic, because rancid; for Wines during their fretting are ever rancid, and taste of the fret; and so all compounded Liquors, as Beer, Ale, Metheglin, &c. whilst they are working, are rancid.

- §. 2. The absurdities that follow the *Hypothesis*, are, 1. That there is no moving living Creature, but is troubled with the *Scorvey* in one part or other; for whilst the Chyle is fermenting in the Stomach, or the Blood fretting in the Vessels, which according to the dictates of Fermentators happens at all times, they become rancid. 2. In *France* I find Fevers more frequent, than in any other Countrey, which in the sense of my Author are all attended with fretting, and very probably some with over-fretting; yet I could never observe any there afflicted with the *Scorvey*, and if they are, I am certain they have no proper name for it in French. 3. That all Heats, Spots, Blotches, and Pustles, that burst out into the Face
and

and ambient skin, upon a fretting of the Humors, are Scorbutic Symptoms, pag. 234. l. 3, 4. which many Wine Drinkers are subject to in many places, where the Disease and name of the *Scorvey* are as little known, as the Man in the Moon. 4. That the fore-mentioned Scorbutic Eruptions, are onely safely cured by Remedies, that demulce and lenifie the incongruous Ferment (as its filed fol. 340. l. 18. which is expressing an *ignotum per ignotius*) such are *Starch*, *Gum Arabic*, *Gum Dragant*, &c. These I am assured, never yet removed Scorbutic Eruptions, I cannot tell what they might operate at *Oxford*, and the Market Towns about it, where *Scorveys* are not so numerous, as to abstract observations from them, sufficient to teach the world a new Doctrine of Scorbutic *Dyscrasies*, and *Copula's*. But this I dare declare for a truth, that real Scorbutic purple, and yellow, some red Blotches, and Pustles, I have removed, and known others to do the like, onely with Antiscorbutic Volatils; which manner of Cure doth in
no

no wise square with the Notion of *Rancid* blood. However it must be assented, that many Eruptions, such as are recited in pag. 234. have been exterminated by Contemperate Medicines, and Bleedings; but then they were not of the genuin Scorbutic issue. *In summa, admissio absurdo uno conceduntur mille.* Wines that have been disturbed by an Overfret, do seldom long continue only *Rancid*, but after a short interval, are incident into a *Putrid Acid*, far different from *Vinegar*, and in that particular, may more exactly square with Scorbutic Blood; but it is not from Emplastick Lenients these Wines require the least Rectification, for through them they are rather rendred far worse. For the removing this sort of dyscrasy, *Coopers* experience the scenting the Cask with *Brimstone*, to be very effectual in manner following; They dip a Linnen-rag into melted *Brimstone*, which being grown cold and coagulated on the Cloth, is kindled into a flame, and hung through the Bung-hole into the Cask, until

until the flame be burnt out, and upon that the Bung-hole is stopt up close again; for the same purpose Lime, burnt Allom, and other Materials, that are pregnant of an *Alcalious Salt*, are commonly used. 5. Upon the confession of the Authors *Rancid Hypothesis*, the Blood of Scorbutics of that degree, ought to appear smoaky, Sooty, Empyreumatic, not easily Coagulable; on the contrary, it's observed *Acid*, Coagulable, Ill coloured, &c. I will conclude this Branch with a Caution, That all Innovators ought rather to Demonstrate their Notions *a Posteriori*, that is, they ought to Invent and Illustrate the Cause, by the Effects and Symptoms, and not to invent Notions of Causes, and by their Virtuality, or by what they probably seem capable to act, to assign their Effect; for that is oft contradicted by Experiment.

§. 3. The other Branch falling under our consideration, is the *Roapiness* of Wines, wherein the *Coopers* generally observe a Gradation of Alteration; for first they begin to Pall,
and

and grow Flat, next they fall into Clots and Lumps of Gelly, and then they say, the Wine drinks tender; at last, their Clots running into one, causeth the Wine to become *Roapy*. This the worthy Author affirms, is occasioned by the association of a lesser proportion of *Sulphur*, with a greater of *Acid Salt*, or *Tartar*. It's an Universal Remarque, that *Sulphur* and an *Acid Salt*, without some other *Intermedium*, that is amicable to both, are insociable; for affuse a *menstruum* purely *Acid* (as Rain water acuated with Oyl of *Vitriol*, *Salt Nitre*, &c.) to *Sulphur*, and digest it *ad Infinitum*, no Tincture shall be Extracted, but upon the least digestion with a Lixive, or any Unctuous Liquor, the *Sulphur* yields its whole body, and entirely unites. 2. It's averred, pag. 234. l. 31. That *Roapy* Wines are reduced by fixt *Alcalies*; which on the contrary, I know some that arrive to their Mark, by dissolving *Roch-allom* into them, that by all is agreed to be an *Acid*, and consequently doth subvert this *Roapy Hypothesis*. 3. The blood of those Scorbuticks, that contract

tract their Distemper on a long Voyage at Sea, must be allowed to be either *Rancid* or *Roapy*. That it's the latter, the Symptoms mentioned *Tract. de Scorb. pag. 234. l. 21, 22, 23.* declare, *viz.* Cutaneous Eruptions; Sloath of Limbs, Difficulty of Breathing, &c. with which Scorbutic Seamen are sufficiently infested. The remedies used successfully by them are *Acids*, *viz.* Juice of Limons and Oranges, Tamarinds, Spirit of Salt, &c. on the contrary, they experience Spirits of *Scorvey-grass*, of *Sal Armoniac*, and others of that nature Detrimental. The Argument collected hence *a Juvantibus*, which are *Acids*, evinces their Blood to be *Alcalious* and *Lixivial*. So that I may safely conclude, that our Authors *Hypothesis* is not only Erroneous, but too scanty, since it only appoints *Contemperatives*, and *Volatil Alcalies* for Remedies; and those being mis-applied (as too frequently happens) are unpowered to render the Disease far worse, and pro-
 vect it into a *Terminative Scorvey*.
 4. I discover a great Contradiction, in illustrating some *Alcalious* and *Lixivial*

vial Symptoms, to proceed from *Acid* causes, viz. *Pendulous* Blood, which though not agreeable with his supposal, he asserts that the lixivial parts abscede from the Blood, by being dissolved in the *Serum*, having quite forgotten his *Pendulous Acid* principle. Thus I read, pag. 256. in *Sign.* 8. the *Ætiology* of *Lixivial Urin* expounded, which Paraphrase is no where received, but in the Latitute of 51st. 5^{ly}. To evade all Objections, and to render Notions more Plausible, his Discourses are observed, to be armed with a Quinary number of Principles, viz. *Spirit*, *Sulphur*, *Salt*, *Water*, and *Earth*, by which to Illustrate the Nature of Bodies, will prove as superfluous, as (in his own phrase, pag. 3. l. 28. *Diatr. de Fermentatione*) to say, a House doth consist of Timber, Wood, Stones, Brick and Lime. For a Spirit being a composite of *Salt*, *Sulphur*, and *Mercury*, signifies it self to be a *Principiatum*, and not a *Principium*. For proof, I offer the most *Alcolized* Spirit of Wine, which in the process of *Spiritus Calcis*, being oft abstracted from *Calx Vive*, its *Volatil Salt* (which
for-

formerly I have demonstrated to be *Fixt Salt*, rendred *Volatil* by the admixture of *Sulphur*) is refixt, and detain'd by the *Alcali* of the *Calx*, so that at last nothing passes the *Alembic*, but a pure *Lymph*; whence it's evident a Spirit is a Compound, and no Principle, which ought to be *simple*. The next multiplication of Principles is the stating *Earth*, and *Salt*, different Elements, which in effect are *realiter* the same, though of distinct Nominati-on. *Earth* is an immature *Salt*, which by Digestion easily passeth into a Salin body. The *Terra damnata* of *Vitriol*, affords an indubious Argument for Evidence: This though very well washed from the *Fixt Salt* it contain's yet being expos'd to the warm Sun for some long time, and then washed over again, yields a considerable quantity of *Vitriolat Salt*, which that it is not attracted out of the Air, but engendred by Digestion of its Substance, appears by the diminution of weight of the said *Terra damnata*, after it is washt. So that the difference between *salt* and *Earth*, is no other than between Stone and Brick,

or

CHAP. XI.

Containing Practical Observations Præliminary to most *Scorveys*.

1. *Acute Symptoms præcurring an Acid Scorvey. How it is Originally engendred.*
2. *Mixt Symptoms, partly Chronical, and partly Acute, præcursors of an Acid Scorvey.*
3. *Chronical prævious Symptoms.*
4. *That those prævious Ebullitions mentioned in the præcited Observations, do not render the Blood Rancid. The Notion of Rancid Blood dangerous in Practice.*

§. 1. **T**He Practical Observations which I do here propose, will render Obvious to you, how the Blood declines into a putrid *Acidity*. It is a remarque I have at sundry times made, that some Bodies, before they
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expressed any Sign or Character of being molested with an *Acid* Scorbut, undergo a smart Ebullition of the Liquors in the Vessels, depending upon an accension of the Spirits, and deflagration of the Bituminous Particles of the Blood, whereunto some Catarrh, Rheumatism, Lassitude, Pain in the Head or Bowels, or some other Symptoms, are attending, which render it dubious, whether this sort of Fever be Essential or Symptomatick; however Antifebril Remedies, as Bleeding, Purging, Contemperatives, and Sudorificks are prescribed, the success whereof in the space of three or four dayes, commonly amounts to the abatement of the Fever and other Symptoms, though not to a perfect Restitution of Health, the Patient for some short time possessing only the condition of a neutral State; hereupon manifest Scorbutic Symptoms begin to take up their quarters with him, as Lassitude, Sloath in Motion, Difficulty of Breathing, Indigestion of Stomach, Interrupted sleeps, and Disturbed with Dreams, Spots, Blotches, and the like.

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§. 2. The

§. 2. The content^o of the premi-
sed Paragraph I do affirm to be the
Morbifique transaction in some, though
in others I likewise observe, that the
preceding Ebullition, or Tumultua-
tion of the Blood is not so vigorous,
as to cause them to think more, than
that they are only a little out of order,
and so the Juices of the Vessels detume-
fying, leave them in a kind of neutral
state; which manner of Ebullition
and Intumescence oft returning, in-
creasing and decreasing, doth at last
result to the same Effect, as if it had
been as smart, as what is above de-
scribed. These are certain and true
Observations, any Physician may
make on Bodies, before the *Scorvey*
declares. A third Observation I shall
subjoyn, after the Explication of the
two former. By these prævious com-
motions the Blood is grown extream-
ly Turbid and Disturbed in its parts,
mixture, consistency, nature, sa-
pours, and other qualities, like Wa-
ter in a River, that grown Muddy
and Thick upon a Storm, raising those
Impurities, that lied on the bottom.
Now

Now the *ſæculencies* and *Acid* tartarous Humours, that by ſtagnating in the Veſſels of the *Meſentery*, and other remote parts, being raiſed, and commixt with the Maſs of Blood, choak up and extinguish the *Spirits* and *Volatil Salts*, damping withall the flaming of the Bituminous particles, upon which the Ebullition ceaſeth. The cauſe of theſe Ebullitions is the ſaltneſs, induced into the Humours by a *Salin Air* and *Diet*, which obtaining a power of condensing, and congregating the *Spirits* or *Volatil Salts*, and ſulphurous or bituminous particles of the Blood, cauſe an accenſion of the foreſaid *Volatil Salts* and *Sulphurs*, whereunto by conſtipating of the Pores the groſs *Salin Air* doth alſo very much contribute. In this conflagration the *Volatil Salts* are in a great part diſſipated and conſumed, the other part ſtiſled, choakt, or extinguishd by the riſing of the *Acid ſalin dregs*, whereby the whole Maſs is not only turned *Acid* (how the diſſipation of the *Volatil Salts* occaſion an *Acidity*, you have read before) but grows putrid

Acid by the commixture of fuliginous acrimonious Salts, that through the foresaid Ebullition and conflagration are occasioned, and through the constipation of the Pores repelled into the Blood. The cause of the latter Observation may easily be collected, from what is here set down touching the former.

§. 3. A third remarque taken from Scorbutics is, that many gradually and insensibly without any such prævious Ebullitions, as are above mentioned, undergo an alteration in their Temperament and Faculties; first observing a sloath in their Limbs, nauseous spitting in the Morning, an ill brassy taste in their Mouth, crudities and imbecillity of Digestion; afterwards do succeed Spots, Laxity, and Discoloration of Gums, stink of Breath, and so the rest in order. The Cause of this sort of Morbifique progress is the Blood, gradually declining to a putrid *Acid*, in the same manner as hath been explained in one of the fore-going Chapters.

Though the first of these three Observati-

vations seem to have some resemblance to the nature of *Rancid* Blood, occasioned by Fretting or Fermentation, and the manner of Cure appointed, in the oft cited Treatise *de scorbuto*, to be performed by Demulcers of the Blood, as Phlebotomy, and contemperatives; upon a more deliberate consideration, you will conclude their difference almost contrary to each other; for, 1. All Ebullitions, especially that expressed in the Illustration of the foresaid first Observation, are not Fermentations; 2. The worthy *Oxonian* Author infers all *Rancid* Blood Scorbutic, though it be still on the Fret, which is greatly erroneous, the *scorvey* being a Chronic or long tedious Disease; this a prævious distemper, that is soon removed, or at least altered into a contrary Intemperament, *viz.* From an Acrimonious hot, to an *Acid* cold Disease. 3. The foresaid Notion is highly dangerous, and oft proves fatal, in deriving thence a Method of Cure; for forming Indications, that this being a hot sulphurous Distemper, lenient and cooling Remedies are

indicated, which if long continued after the Fermentation is quieted, and an *Acid* disposition introduced, do render the Disease incurable.

§. 4. It is only in some, that this Ebullition is a præcursor to the *Scorvey*, whereas the Notion of *Rancid* Blood doth infer all *Scorveys*, that are not depending on pendulous blood, effects of an immoderate Fermentation.

CHAP. XII.

Declaring a further Illustration of a *Saponary Leg-Scorvey*.

1. *The Symptoms of a Saponary Leg-Scorvey.* 2. *Proof that the Bituminous parts of the Blood, do easily unite with the Fixt Salt.* *Pendulous Blood is not miscible with Acid Salt.*

§. 1. **I** Have formerly observed, that an *Acid Scorvey*, upon a long con-

continuation, changeth into a *Sap-
nary Scorvey*, which as was hinted be-
fore, is the Cause of some *Leg-Scor-
veys*, whose Symptoms, are Infla-
med, Tumefied, Corroding, Phage-
danic, Cancerous Ulcers, Hot burn-
ing and pricking Nocturnal Shin-pains,
frequent glowing of the Calves of
the Legs and Plants of the Feet, an
Erysipelas Phlegmonodes of the Legs,
salin pungitive Rheumatisms and De-
fluxions to the *Periostium* of both the
Fossils; besides a saturated Lixivial
Urin, a fuliginous fowl Stinck of the
Body; the Blood when extracted by
Phlebotomy appears of a deep in-
flamed Subpurpureous aspect, besides
many other Symptoms, all which
to any Judicious Physician are
sufficient Testimonies of an *Alca-
lions* constitution of Humours. But
this is not all; for the Blood in this
Case is not only *Alcalions*, but *Sapo-
nary*, as now will be made apparent
to you. There being a large propor-
tion of impure *Sulphur*, or gross Bi-
tuminous Particles, mixt with the
Humours in this degree of *Scorvey*,
the *Alcalions* fiery Salts do easily at-
tract,

tract, Colligate, and Unite them to their own Particles, which absorbing the *Serum* in a great measure, must needs render the Blood thick, cohering, and a little obductible.

§. 2. That the Bituminous parts of the Blood are so apt to be united to the *Fixt Salt*, is evident from the ready commixture of Tallow, Train Oyl, or other unctuous bodies with Pot-ashes in the Composition of Soap, from the resemblance whereunto (as formerly hath been intimated) I have termed the fore-mentioned constitution of Blood *soapy*, or *saponary*. The same Promptness of Union several other Chymical Preparations do likewise confirm, as in particular; the Ebullition of *Sulphur* with the dissolution of *Salt of Tartar*, *Fixt Nitre*, or a Lixive of *Calx vive*, in the process of *Lac Sulphuris*; also in the Preparation of *Hartman's Sulphur of Antimony*, where the *Antimony* being fused by the violence of a ventous Fornace, and instilled into the deliquious Oyl of *Tartar*, its Sulphurous parts are immediately Imbodied with the

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Alkali of the foresaid *Tartar*. Whence we may plainly Collect, that in our Authors *Pendulous Diathesis* of the Cruour, which by him is supposed to be *Acid*, there is no probability of their ready Coalition. And after all, I must tell you, that the Blood in that sort of *Scorvey*, which is not *Rancid*, as he terms it, is not absolutely *Roapy* or *Pendulous* like Syrup, *Barbadoes Treacle*, or *Therebinthin*, as the *Oxonian* Professor intends it, but far different.

CHAP. XIII.

Of the Causes of *Scorbutic* Symptoms.

1. *The Cause of a Scorbutic Lassitude and Imbecillity of Limbs. That a Scorbutic Lassitude is not occasioned through a Fermentation of the Nervous Liquor and the Extravase Blood. That the Nervous Juices are not contrary to those of the Veins and Arteries.*
2. *The Cause of a Dyspnœa, or Difficulty of Breathing.*
3. *The Cause of a Low, Quick,*
and

and Inequal Pulse. 4. The Cause of a thick Red Urin. 5. Of Spots and Blotches. 6. Of the Bleeding of the Teeth, and Hemorrhages. 7. Of Fainting and Palpitation of the Heart. 8. Of Erratic Fevers.

§. I. **I**N course I ought next to Adapt these præceding Causes to their Effects, viz. Scorbutic Symptoms, in which I judge I shall not find that difficulty, or be Obligated to strain the former, to square them with the latter, since I arrived to the Knowledge of them by the Observation of their Effects. I shall commence with the Explication of the Cause of Lassitude, and Sloath of Limbs, as ordinarily the first budding in a Scorbutic Body. A Lassitude, Debility, and Sloath of Limbs, are Affections of the nerves, which originating from the marrow of the Brain & Back, must necessarily derive their Causes thence, unless we should conceive them naturally to draw in at both ends; but there being usually concomitant other Symptoms of an affected Brain, as Drowsiness, Obtuseness of the Internal senses, &c. doth amply

amply confirm, what is asserted. Wherefore the Blood according to the first Observation mentioned in *Chap. II.* being affected with a tumultuation, the Spirits and *Volatil Salts* are inflamed, and rendred Acrimonious, which being the principal constituents of the Animal Juices, must necessarily prick the Nerves, through which they pass, and incommode the Nervous parts, to which they are transmitted. As for the Imbecillity and Sloath of Limbs, also the obtusion of the Animal Faculties, they depend on the intemperature of the Animal Spirits, not being potent enough to perform their Offices with alacrity, to which their accustomed just Temperament is absolutely requisite. By the way you are not to apprehend here, that the said Lascitude is occasioned through a Fermentation, hapning upon the appulse of the *Nervous Liquor* (rendred *præternaturally Acid*) to the Articles, and there meeting with *Lixivial Blood*; for the constitution and temperament of the *Nervous juices* are not so extreamly different from that of the *Blood*, as to be contrary to it, which in this sort of
Fermen-

Fermentation or Ebullition is necessary it should : I can conceive no more difference between them, than between *Spirit of Wine* and *Wine*, which former cannot be indued with any other qualities, than what it derives from the latter. And here it is, that trite *Maxime* is verified, *Vitium primæ coctionis non corrigitur in secunda, nec secunda in tertia*. So that, if the constitution of the Blood in the Arteries be *Acid* and not *Lixivial*, the Animal juices must likewise be *Acid* and not *Lixivial*, as being engendred by a further digestion out of the said Arterial blood. Hence I argue, that Arthritic pains in the *Scorvey* do not proceed from a Fermentation between an *Acid* Nervous Liquor, and *Lixivial* blood about the Joynts; moreover as you shall be further satisfied below, the *Lixivial Salts*, that are cast forth to the circumference in an *Acid Scorbnt*, do not partake of an Acrimony, or at least not so intense, as to excruciate the Limbs with those insufferable pains. But after all, the indication desumed in this case from the Nervous Liquor, assigns an Alcalious Medi-

Medicine, and that which is collected from the Lixivial Blood, indicates an Acid; an absurdity not to be admitted in Physick, that one and the same Disease should require two Medicines *per se* contrary to one another.

Neither can I assent to that opinion *Tr. de Sc. p. 250. l. 25.* which asserts the cause of a Spontaneous lassitude and weakness of the knees and legs, to be an infarction of the pores of the Musculs with Excrementitious humors, through which the Animal Spirits are obstructed in their passage; for it is not observed, that there is any Tumor or Tension in the flesh of the said Musculs, but commonly hangs lank and laxe; on the contrary, where there is a real Tension and Tumefaction of the Musculs of the Legs, which some gross Bodies are subject unto, we do not find any other, then a small compression of the Nerves and Tendons, notwithstanding which, the Animal Spirits have their free influx and reflux, and the Limbs their sense and motion; wherefore if there be no obstruction or constipation in this case, much less in the other, and consequently

quently it must be the Animal Faculty and Loco-motive Spirits, being præternaturally affected, that are the occasion of these last fore-mentioned Symptoms.

§. 2. The *Dyspnœa* or difficulty of Breathing, that so oft is implicated with the *Scorvey*, depends on the stagnating of gross Acid Blood in the *Vena Arteriosa* or *Arteria Pulmonalis*, *Arteria Venosa* or *Vena Pulmonalis*, and in the Pores of the *Parenchyma* of the Lungs; for every *Systole* propelling the streams of Blood into the fore-said Artery faster, than it is received through the Pores of the *Parenchyma* into the *Lung Vein*, the Lungs must necessarily be stuffed, swelled up, and consequently much oppressed by the weight of this stagnating Blood. But that I may prævent you from lapsing into the same error my Author is fallen into, it's convenient I acquaint you here with the meaning of *Dyspnœa* or difficulty of Breathing; *Respiratio Anhelosa*, or short and thick breathing, or in the common phrase, *Short windiness*, *Asthma*,
or

or improperly *Phtysick* and *Orthopnea*, or the worst and extream degree of *Phtysick* and their difference; for *qui bene distinguit, bene docet*. In a *Dyspnæa* the breathing is somewhat long and slow, with the sense of an oppression or weight, as if something kept the Lungs down. A *Respiratio Anhelosa* is a quick and thick Breathing, as you may perceive in your self, after any smart Exercise, as Running, or Carrying a Weight, &c.

An *Asthma* is a thick and short breathing, accompanied with a wheezing noise, and commonly also with a Cough. An *Orthopnea* is a long and slow expiration, and a quick catching (as it were) inspiration, attended with such a stifling, that the Patient is forced to sit upright, thrusting his Mouth up and gaping for Air.

A *Respiratio Anhelosa* is also frequent among Scorbuticks, and is occasioned by a Putrid Acid Blood, that is (as I have told you before) Fuliginous and Acrimonious, by means of those sharp footy steams it irritates, and prompts the Lungs to a quick breathing, to prevent stifling, and to attract

attract a clearer Air instead of those sooty Evaporations, which in some I have observed so copious, that their Tongue was covered with a black scum, not unlike what is fræquently taken notice of in continual ardent Fevors.

§. 3. As the Pulse in respect of quickness and æquality of motion, doth proportionably correspond with the Respiration in a healthful, and likewise in a morbifique state; so it doth in the *Scorvey*, where in this degree it's quick, fræquent, and unæqual in motion, which is occasioned by the same cause, *viz.* by Acid Fuliginous Blood, stimulating the Vital Faculty of a quick motion, and imposing a necessity on the Ventricles of the Heart to an expeditious explosion of the Acrimonious *Cruor*. The inæquality of Pulsation depends on the unæqual mixture of the Blood with those Fuliginous steams (or *Heterogeneous Copula's*) that do so unæqually vellicate the sides of the Ventricle.

§. 4. A ruddy and thick Urin is
most

most commonly an attendant of a *Preliminary Scorvey*, which is comprehended and specified in the two foremost Observations of *Chap. II.* the production whereof is a dissolution of those deflagrated Salts and Sulphurs in the *Serum*, which afterwards is præcipitated by the Putrid *Acid*; that's ever a sequel to the Scorbutique Ebullition, and so abandoned to the Kidneys and Ureters; but as the said Ebullition doth onely occasionally happen now and then, so the fore-mentioned ruddy Urin doth onely appear on those occasions. For the greater part the Urin is turbid, and copiously saturated with a thick sediment, that is apt to furr to the sides and bottom of the Chamber-pot, being nothing else, but an excretion of crude indigested Tartar, or Acid Salt, from the Mass of Blood; if at some seasons the Urin appears thin and aqueous, that may happen either thorow the potent coagulative quality of the acidity in the Blood, not separating the superfluous and excrementitious Tartar; or through some obstruction of the passages, leading to or from the

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Kidneys, suffering the thin only to pass, and retaining the thick. Moreover observe, that in those thick drabby Urins, upon some standing the gross sediment is apt to sink to the bottom, leaving the middle clear and transparent, and a cream swimming on the top, which is nothing but the mucilaginous part of the Tartar, through its lightness recovering the surface of the Urin.

§. 5. Spots and Blotches of several colours do ordinarily survene a *Scorvey*, and are caused by a condensation of the sulphurous parts of the Blood, that are deflagrated, and *Volatil Salts* amortized through the *Acid*, in the pores of the ambient Skin or *Cutis*, where they are deposed or deserted by the *Acid Blood*, withdrawing it self from them, and through its penetrative faculty insinuating into the Veins, returns by the circulative motion into the Body; whereas the others being so much obtused, are rendred incapable of reverting into the Vessels. These Spots and Blotches are not dolorous, because the acrimony of

of the depofed Salts is obtufed ; their colour if red , they derive from the Sulphurous or Bituminous parts of the Blood, mixt with the Volatil or Amortized Salt ; if yellow, from an admixture of part of the *Acid Salt*, condensed and obtufed by the reaction of the faid *Volatil Alkali*, which now mentioned obtufed *Acid*, if left com-mixt in a greater proportion with the *Alkali*, and with a leffer proportion of the Bituminous Particles, render thofe Blotches of a livid tincture.

The production of Scorbutic Puffles and Botches differ from Spots and Blotches in this only, that the Salts in thefe latter are diluted, or diffolved in fome part of the *Serum*, which in the former are more condensed and coagulated. Some of thefe are without pain, others are painful ; the latter hapening, becaufe the acrimony of the forefaid Salts is not totally obtufed by reaction.

§. 6. The bleeding of the Teeth, frequent Hæmorrhages of the Noſe, and Hæmorrhoids, alſo immoderate Menſtruations, and ſometimes a bloody
M 2 Flux,

Flux, are Symptoms of this Disease, occasioned through a serous *Acid Blood*, rendred acrimonious and corroding by the Imbibition of fuliginous Salts, corroding the termination of the Vessels. Note, that in most Scorbutics are two sorts of Blood, *viz.* A gross and fæculent Blood, coagulating and præcipitating it self from the more serous and fluid parts. The gross Blood floats about the Entrails and lower parts, and is $\chi\alpha\tau\acute{\alpha}\rho\phi\omicron\alpha\theta$; so the other being more fluid and light, is more apt to be $\delta\upsilon\sigma\acute{\alpha}\rho\phi\omicron\alpha\theta$, and to stream upwards. Those intollerable Gripings of the Guts without a looseness, which Scorbutics here are so miserably tortured with, are likewise occasioned by the same corrosive Humors, or rather nitrous *acid Juices*, infesting the nervous, and consequently most sensible Tunics of the small Guts. That the cause of these Autumnal Epidemic Gripings of the Guts, the Inhabitants of this City are so much exposed to, is a *Nitrous Acid*, appears partly by the *Procatarticks*, *viz.* Liberal Drinking cold sour Small-beer, when they are heated by the æstuating Rays of the Sun,

Sun, going cool in their Clothes, and lying half Naked in Bed, immoderate eating of Horary Fruits; and partly by the Cure (*Argumentum a Juuantibus*) Volatil Salts and Aromatics, not only giving ease, but oft removing the Distemper. But that these *Acid Juices* should distil from the Brain through the Nerves, or be the *Liquor Nervosus* rendred *Acid* (as our Learned Author asserts in a late Treatise intituled *Pharmac. Irration.*) and all this while the Brain continue unaffected with any Symptom, *Non credo.*

Whence frequent Spitting, Laxity, Discoloration, Corrosion, and pain of the Gums and Teeth do proceed, hath been declared formerly.

§. 7. The Fainting and Palpitation of the Heart is caused by fuliginous acre steems, suffocating the Heart in the former, and Vellicating its Ventricles in the latter.

From what hath been already explicated, may easily be Collected the cause of Vomiting, Nauseousness, Punctorious pains of the sides

of the Breast, tearing pains of the Stomach, Loosness, Head-ache, &c.

§. 8. Those Erratick Fevors, that ordinarily are observed to attend the *Scorvey*, are oft occasioned by a copious quantity of Fuliginous Salts, that have been Deflagrated, and by their long continuance have attracted some proportion of impure Sulphurs, and so take flame again.

CHAP. XIV.

Of the Description of the *Scorvey*.

1. *The Description of the Scorvey.*
2. *Whether it be an Occult Disease, or Morbus totius substantia.*
3. *Whether it be a Similar or Organical Disease.*
4. *Which is the part Primarily and Principally affected.*

§. 1. **T**He *Scorvey* being seated in several parts of the Body, occasioned by various Causes, and

and attended with a train of all manner of Symptoms, appears as if it had no certain Essence, and consequently is not capable of a description so *Pathognomonic*, as other Distempers, and therefore you must be contented with such as can be given of it, *viz.* *The Scorvey is an Universal, Multiform, Variable, Endemic, and Contagious Disease of all the parts of the Body, particularly of the Stomach, Spleen, and Liver, occasioned by a Salin Blood, and attended with a Cachexia of all the parts, Spontaneous Lassitude, Pefanture and Imbecillity of the Limbs, but especially of the Knees, difficulty of Breathing, sore and lax Gums, spots, Blotches, Pustles, &c.* The Universality of this Distemper consists, 1. In Attaquing all People generally more or less, inhabiting a Scorbutic clime. 2. In a Praternatural disposition of all the parts. It's Multiform, because it assumes all shapes of Diseases, there being scarce any Distemper, which in one Symptom or another, it doth not resemble. Moreover, it's a Cold, Hot, Dry, and Moist Disease, as it's Symptoms do plainly demonstrate,

viz. Inflamed hot Pustles, *Erysipelas*, cold Oedematous Legs, moist Rheumatisms, dry Scabs, &c. It's also variable in all manner of respects, 1. Variable in the Subjects, there being scarce two in a Hundred, whose Symptoms are alike. 2. In the parts affected, being commonly chiefly rooted in the Stomach, sometimes in the Spleen, other times in the Liver; moreover, *per μετασταν* oft transferring its head quarters from one part to another, and exchanging the whole *Syndrome* of Symptoms into another quite different, and also in progress of time passing from an *Acid* into a *Lixivial* and *Saporary Scorvey*, or from a *Mouth-Scorvey*, into a *Leg-Scorvey*, and thence into a *Joint-scorvey*, or sometimes into a *Terminative Scorvey*. That this Distemper is endemic (*Tam ratione aeris quam aquæ*) hath been declared elsewhere; and certainly it is Contagious, since most Endemic Maladies are so, there being ordinarily Miasms, or perfect Scorbuitic seminaries transported, by means of the Vehicle of the air from one Body to another, which obtaining a power of producing their like out of the

the humours of such Bodies, into which they are transferred, engender an absolute *Scorvey*, in a far less space of time, than if it had primarily took its rise in that manner, I have heretofore explained. All the parts of the Body and Humours being thoroughly infected with the Scorbutic Seminaries, the Spermatic parts cannot be free, which must therefore also render this Distemper *copiosus* and Hereditary. 1. By means of the *Semen* of the Parent, and its plastic faculty. 2. Of the Uterin Blood. 3. Of the Milk assuaged by the Infant, whence we may term it *συντροφας*. 4. Of the Contact (*συνπαθη*) of the Lips of the Mouth, and Ambient Skin of the Body, whereby the Scorbutic *μιασμα* is transferred to the Child, by being Kissed or Hugged by the Parents, and lying by them in Bed. But because you shall not only be satisfied with my Information, give me leave to acquaint you what *Platerus*, the Learned Professor of the fore-going Century at *Basil*, reports of it, *pag.* 355. This Malignant Disease when it first discovered it self
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in the Maritime Northern parts, and proved Contagious, gave me no small suspicion, That from remote Countries, which these People that cross the Seas do in our Age discover, almost to the extream Borders of the Earth, and where possibly it is familiar; it was Transported first to these places that are near the Sea by Seamen.

§. 2. Definitions or Descriptions are rarely so perfectly made in the Art of Physick, as to rescind the occasion of all Objections from Cavillers, and therefore to prevent that Risk, I will be Opponent to my self, in forming several Doubts and Objections against the Definition by me proposed in this Chapter. First, I offer this Question, Whether the *Scorvey* be a Manifest or Occult Disease, that is as *Fernelius* doth term it, a *Morbus totius substantiae*? Some that Argue from Authorities, probably may offer the Sentiments of *Platerus*, *Sennertus*, *Steeghins*, and others. The first of these asserts the *Scorvey* to be an Occult Malignant, and absolutely Venomous disease. The second gives us a definition

tion (which as I said before, the *Scorvey* is not capable of, as having no essential difference) in these terms. *The Scorvey is an Evil and Occult quality, or disposition, impressed on the whole Body, but chiefly on the Bowels, that are destined for Nutrition, arising from a gross Melancholy Humour, that's Ichorous or Serous, and corrupted in a peculiar manner, or, saith he, It is a certain Evil Nutrition, or Ill Habit of the Body, &c.* The last expresses it, to be a Moist distemper of the Spleen, occasioned through the putrefaction of the thick Humour, which the Spleen delights in. The formost Opinion may easily be Refelled, since the Symptoms of the *Scorvey* may be plainly deduced from Causes, that are obvious and manifest. 2. All Venoms do immediately assassinate the Heart, dissolve the *Vinculum vitæ*, and have this Qualification appropriated to them, that they are only to be Expelled by their Antidotes; but common Observation tells us, that the *Scorvey* moves gradually, is more ordinarily seated in the *Spleen*, or *Stomach*, than the *Heart*, and is Cured by Medicines,

dicines, that Operate by a Manifest, and not Occult quality, namely such as are of a subtil igneous and colliquative faculty, as *Scorvey-grass*, *Watercresses*, &c. The second Definition favours much of the first, and renders it a *morbis totius substantiæ*, which that it is not, appears from the former Answer. *steeghins* will have it a Moist disease, and asserts Melancholly a Drying humour, the continent cause; which however *per accidens* may produce a Moist distemper; but waving that, it is most certain, that in many Scorbutics the Spleen is not affected, and therefore cannot be described to be a Moist distemper of the Spleen.

§. 3. The next Quæry is, Whether is the *Scorvey* a *Similar*, or *Dissimilar* Disease? Some that do allow the *Scorvey* a Disease of very ancient date, adjudge it a *Dissimilar* disease, and in particular a Disease of Magnitude, viz. A great Spleen. *Pet. Forestus* asserts it a Compounded disease, and not Simple. The fittest answer to this in short is, That primarily it is

a *Similar*, and secundarily a *Dissimilar* Disease.

§. 4. The third Quæstion is, Which is the part Principally and Originally affected in the *Scorvey*? *Horstius* states the Spleen the part affected, others the Stomach only, and many the Stomach, Spleen, and Liver. If in some it be observable (as it is) they are troubled with luxuriant glowing Gums, and vacillation of their Teeth, without the concomitance of other Symptoms, in all probability it's the Stomach is the only part affected, there appearing no Sign or Symptom of any other entrail, that's affected. On the other hand, if no other Symptoms Emerge, besides blewish Scorbutic Pustles or Blotches, it may rationally be concluded, no other part is affected but the Spleen. It has been also observed by *Forestus*, and *Kenſnerus*, that the Spleen and other Entrails have not appeared much affected in some deceased Scorbutics, but the Liver chiefly, wherein was observed a great discoloration, and dissolved unity of its substance. Whence we may deduce,
that

that a *Scorvey* that's contracted by a *Salin Diet*, the Stomach is originally and primarily affected, in that which is occasioned through a *Salin Air* the Spleen, but after some continuance they become all parts æqually affected.

CHAP. XV.

Of the Differences of the *Scorvey*.

1. *A distinction taken from the Growth of the Scorvey.* 2. *From the manner of its Origination.* 3. *From the parts primarily affected.* 4. *From the Internal Cause.* 5. *From the Concentration of Symptoms.* 6. *From Prædominant Symptoms.* 7. *From the Occultation of Symptoms.* 8. *From its manner.* 9. *From the place, where it reigneth.* 10. *That these Distinctions are of great Use.*

§. 1. **S**ubjects that consist of a mutable Nature require exact distinctions, which are to be desumed,
1. From

1. From its growth, whence the *Scorvey* is called either *Preliminary*, *Liminary*, *Recent*, *Inveterate* and *Terminative*. A *Preliminary Scorvey*, I must confess, is very Improperly named a *Scorvey*; for being absolutely considered in it self is no *Scorvey*, but in a Relative and Subsecutive way I have Imposed that Denomination only *Doctrina gratia*, to express the root whence a commencing *Scorvey* doth spring and bud forth. This being præmised, I intend those Ebullitions comprehended in the Observations that are Delineated in Chap. II. for a *Preliminary Scorvey*, because they præcede, and are generally *Preliminary* to a *Scorvey*. A *Liminary Scorvey* is that, which upon the quietation and subsidence of a *Preliminary* Ebullition buds forth. A *Recent Scorvey* is a confirmed *Scorvey*, but of no long standing, and is answerable to the augment of the Distemper. An *Inveterate Scorvey* is a Distemper of a long continuance, and alludes to the *state* of the *Disease*. A *Terminative Scorvey* is that *Disease* whereinto it doth pass, and puts a termination to the *Distemper* and Life also

so; as a Scorbutic Dropsie, or Consumption, &c. for it is such a sort of *Disease* the *Scorvey* doth at length terminate into, and so prove Mortal.

§. 2. From the manner of its Origination, in which respect it's either *Hereditary* and Connate, when it's derived from the Scorbutic indisposition of the Parents; or *Adventitious*, which is engendred some time after one is Born; and this is twofold, for it's either *Contagiously adventitious*, when gotten by Infection, or *Non-naturally Adventitious*, that is, when contracted through fault of some of the *Non-naturals*, as Salt diæt, Salin Air, Melancholy, want of Stirring, &c.

§. 3. From the parts Primarily and Principally affected, this *Disease* is termed an *Hepatic*, *Splenetic*, or a *Stomachic Scorvey*.

§. 4. From the Internal Cause, it's stiled either an *Acid*, *Lixivial*, or *Saponary Scorvey*.

§. 5. From the parts where the
Symp-

Symptoms do concentrate and clot together, it derives the name of *Mouth-scorvey*, *Leg-scorvey*, or *Joynt-scorvey*; By the way I must give the Reader this Advertisment, That in a *Mouth-scorvey* the Symptoms are not so limited, or circumscribed, as to extravague no farther than the Mouth, but that some slight superficial Symptoms of the other kinds are also attendant, viz. A great weakness or feebleness of the Knees, spots about the Legs and Arms, Blotches in several parts, especially in or near the Groin, Ambulative glancing pains about the extreme parts, &c. So likewise in a *Leg-scorvey* some Symptoms of the Mouth and other parts are remaining. So that this distinction doth chiefly take its denomination from the greater number of urgent and remarkable Symptoms, that haunt the Mouth, Legs, or Joynts.

§. 6. From some prædominating Symptoms the *Scorvey* oft takes a particular Nomenclature; from an *Asthma* it's called an *Asthmatick Scorvey*; upon the same account it's filed a

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Rheumatic Scorvey, a *Torminous* or *Gripping Scorvey*, a *Diarrhæous Scorvey*, an *Emetic* or *Vomiting Scorvey*, a *Flatuous Hypochondriac Scorvey*, a *Cutaneous Scorvey*, viz. of Spots, Pustles, Blotches and Pimples, an *Ulcerous Scorvey*, a *Dolorous Scorvey*, &c.

§. 7. From the occultation or hiddenness of the Symptoms within the Body, it may be called an inward, hidden, or *Latent Scorvey*, which doth not manifest it self in Symptoms that are external and evident, as Spots, Mouth or Leg Symptoms; but without the Concomitance of these, there is onely observable a Neutrality in point of Health, a defection of Appetite, some small oppression of the Breast, a diminution of ones usual inclination to stirring, and some little hebetude or dullness of the Senses, &c. or a *Manifest Scorvey*, appearing in external Symptoms.

§. 8. From its manner, it may be termed a *Mild* or *Malignant Scorvey*. From the Countrey or place where it reigneth, its called an *English*, or *Dutch* Scor-

Scorvey ; also a *Sea*, or *Land Scorvey*.

§. 9. It is not to increase the bulk of this Tract, but the great use that may be made of these differences and distinctions, as you will in their proper places observe, hath been the occasion of inserting them in this Chapter ; the truth hereof will manifest it self, when you come to understand, that many patients are frustrated of their hopes of Cure, and some præcipitated to their Tomb, thorow the neglect and error in making a right distinction of their Disease, its degrees, and its various mutations, which sometimes is to a contrary distemper ; and it is here chiefly, that I pretend to be particular, whereas the Vulgar Hackney Physician neglecting the Journal of progressions in Maladies, followeth onely the common Tract of Method and Remedies, and therefore frequently misseth his scope of restitution of health.

CHAP. XVI.

Of the Diagnostick Signs
of the *SCORVEY*.

1. *The Signs of a Preliminary Scorvey.*
2. *Signs of a Liminary Scorvey.*
3. *Signs of a Recent Scorvey.*
4. *Signs of an Inveterate Scorvey.*
5. *Signs of a Terminatory Scorvey.*
6. *Signs of an Hepatic Scorvey.*
7. *Signs of a Stomachic Scorvey.*
8. *Marks of a Splenetic Scorvey.*
9. *Notes of distinction of an Acid, Lixivial, and Saponary Scorvey.*
10. *Directions to discover a Latent Scorvey.*
11. *The difference between an English and Dutch scorvey.*

§. I. **A** *Preliminary scorvey* is not onely discovered by præceding Scerbutic Procatarctics, but also by the Pulse and Urin, the former beating not so unaqual, as in continual putrid Fevors; neither is the heat so pungent, but glowing only, that

that is obtuse and fuliginous: the latter is commonly of a higher colour, than in an ordinary continual Fever it can arrive to in so short a space of time, and very abounding in a gross ruddy sediment. Moreover the ebullition of Blood is of no long continuation, but in a few dayes is apt to fall and subside, unless provoked by the error of the Physician or Patient.

§. 2. A *Liminary Scorvey* some do decipher by these four *Pathognomonic Signs*, 1. A livid and deathly Complexion of the Face. 2. An itching deep redness of the Gums. 3. An Oppression of the Brest and Respiration, also of the Sides about the Bastard Rib-. 4. A Painful Feebleness of the Knees. These we grant to be common Signs in an evident commencing *scorvey*, but not *Pathognomonic*, because they do not alwayes attend every Scorbutique; for I have met with some, that without those Symptoms before-mentioned, have been disfigured with livid Scorbutique Spots, likewise some whose Mouth and ad-

jacent parts were affected, without the least sense of feebleness in their Knees, or Oppression of Respiration; Lastly, Those that are molested with a *Latent Scorvey*, are exempted from several of the prænumèrated Signs.

To these common Diagnosticks must be added a fifth, A great heaviness of all the Body, and lumpishness or dulness of the internal and external Senses. 6. The Appetite in some is obtused, in others it's so much sharpened, that they are apt to covet more than they can digest. 7. A *Βεζουρτία*, or the digestion of the Stomach somewhat impaired of its wonted vigor; as appears by a small heaviness and drowsiness after Meat, and accompanied with Belchings and Winds murmuring downwards. 8. The Urin is less transparent, and grown a little turbid and drabby. 9. All these may be confirmed, by considering the *Præcatartick* Causes, viz. Whether they have lived in a Scorbutic Air, or fed upon Salt Diæt, or by reason of Imprisonment, or other voluntary Confinement, have neglected all manner of Exercise, or whether they have

have been under some occasional Melancholy, or whether some usual evacuation, as the *Menstrua*, Hamorrhage at the Nose, or Hamorrhoids, Issues in the Arm, Neck, or Leg, or in any other part, be not suppressed. Or whether they are not splenetic or Hypochondriac; or have lately been troubled with a Quartan Ague: Or whether their Parents were not subjected to the *Scorvey*; whence it might be esteemed Hereditary; or lastly, whether they do not daily converse with Scorbutiques, whereby it might become Contagious. Consider also the *Juvantia*, and *Nocentia*, what things help them, and what hurt them.

§. 3. The signs of a *Recent*, or *Augmented Scorvey*, are, 1. A spongy swelling of the Gums, which upon the least pressure, or biting a piece of Bread, are apt to exudate Blood. 2. A great stink of the Mouth. 3. Looseness of the Teeth. 4. Spots like Fleabites, and Freckles dispersed over the whole Field of the Body, but thickest about the Mouth, Temples, Arms,

Breast, and Knees; some are Red, others Yellow, Grayish, Duskyish, Purple, or Blackish, easily disappearing in one place, and emerging again in another. 5. A deeper transmutation of the Complexion into an ill habit of Body, the looks seeming Yellowish, Greenish, deep Red, Sallow or Swartish. 6. The Oppression of the Lungs, Breast and Sides is considerably increased, insomuch that when they stir or rise up, they are subject to faint and gasp for Breath, which continueth so long, until they sit, or lay themselves down again. 7. Puffing up of the Stomach particularly after Victuals, and Tension of the Belly. 8. The weakness of their Knees and Ancles, is likewise much augmented, which renders them far more Impotent in going, or moving. 9. It's observed, that in many the whole train of Symptoms is apt to be intended or increased every fourth day, in some every third day, that is every other day (for Physicians do reckon inclusive) in others at certain seasons every day. 10. In this degree they are usually Costive. And 11. troubled

with

with Pain and Stiches all over. 12.
Suppression of the *Menstrua* in Women, in stead whereof, they are molested with a sort of painful Whites.

§. 4. In an *Inveterate Scorvey*, these Præcited Symptoms and Signs, as they have taken deeper Root, so have also assumed a greater Intension and stubbornness; for in this degree the Patient is deprived of all power of Moving or Stirring; the Sinews, Tendons, and Muscles, are apt to be stiff and contracted. He is molested with Vagrant, Ambulative, Distending, Creeping, Vellicating, or Lancinating Pains of several parts of the Body; bruising Ossifragous (*osteorhææ*) pains in the midway of a Limb between the Joynts, torturing most in the Night; Red, Yellow, Purple, or Blackish splotches, especially about the Knees, which sometimes being concomitated with a Tumor, and extending thence downwards as far as the Foot, and meeting altogether in one tumefied Splotch render the Leg to ones view, as it were all over Leprous; a frequent recurring Melan-

lancholy passion, Hiccoch, choaking Coughs, and copious Salivations, violent Palpitations of the Heart, deep Swooundings strenuous Vomitings, tearing Iliack pains, which a famous Author names a *Dysenteria Incruenta*, but how properly, let others judge. The Pulse variable, inæqual in motion and strength, most times low and thick, and sometimes vermicular, though at other times strong and violent, that is Thumping. The Urin is inconstant, oft turbid and whitish, sometimes thick and reddish, seldom thin and pale; deep Red, or purple Tumor and Pustles, scattering over the Surface, Redness of Face, Tumors and Impostumes of all kinds, according to the Temperament of the Grieved. The foresaid Splotches oft do peel off in Scales of several colours and figures, or exchange into *Erysipelas's*, these and likewise Botches do pass into Ulcers, some of which are superficial, profound, simple, inflamed, callous, dry, sanious, purulent, &c. In some few the Veins under the Tongue, and about the inside of the lower Lips are varicious; some
also

also they are debilitated by great Sweats, which they are exposed to. In an *Inveterate Scorvey*, they are oft Loose and subject to fall into violent Fluxes of the Belly, or *Diarrhæa's*, and *Lienteries*, which if continuing, pass into a *Terminatory Distemper*. The tormenting pain in the Back, called *Lumbago*, and resembling the pain that's occasioned by the Stone of the Kidneys, is very brisk in this degree, as also spurious Pleuritick pains.

§. 5. The Signatures and Symptoms of a *Terminative Scorvey* (which is the extream degree, whereinto the forgoing passeth either *per metastasim*, or *epitaxim*), are, 1. A Scorbutic Phagedenic, cancerous or gangranous Ulcers, and *Caries* or Rottenness of the Bones. 2. A Scorbutic Fistul, which may happen to several parts. 3. A Scorbutic Dropsie, which commonly proves an *Ascites*, though I have also remarqued the *Scorvey* hath made its *Exit*, through an *Anasarca*, and *Tympanie*. 4. A Scorbutic *Atrophy* and *Marasmus*. 5. A continual very fluent

ent and drivelling Salivation, which one in *Throgmorton-street* hath laboured under several years, and will certainly conduct him to his Grave. 6. Scorbutic Convulsions, and *Epilepsies*. 7. Fræquent *Syncopees*. 8. Scorbutic Palsie, and Tremors. 9. Scorbutick *Apoplexie*. 10. Scorbutic Quartan, Tertian, Erratic, Hectick, and continual Malignant Fevers. 11. Scorbutic *Orthopnea*, and Periodical Coughs, and *Asthma's*. 11. Scorbuticks *Phthisis*, or Pulmonique Ulcerous Consumption. 13. A continual Flux of the Belly, as a *Dysentery*, or *Lientery*.

§. 6. The Signs of an *Hepatic Scorvey*, are, 1. Deep, Red, or Yellowish prurient sanguinolent Gums. 2. Red, Yellowish, or Cineritious Spots and Splotches about several parts of the Body, especially about the Breast, Neck, and Face, also Pustles and Bumps of the like tincture in the same places, that prove somewhat Incommodious by a Pruriginous itching quality, also Erysipela's, Shingles, and Ring-worms; some of those Spots and Splotches of
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an Ash and Citrin colour I have observed to be indued with a faculty so corroding, that their seat hath been deep in the Skin, much below the Surface. 3. The Complexion of the whole habit of Body, tending to a Cineritious or Subcitrine defœdation, and in some to a Verdure. 4. A Stich or pricking, and in many a weighty depressing pain in the right side, under the short Ribs, particularly upon a deep caprisant Respiration. 5. A soreness, pain and oppression in the right *Hypochondre*, when lying on the left side. 6. Difficulty of Respiration, the Urin and Pulse uncertain, nigorous Belchings, besides several other signs common to a *Liminary*, and *Recent scorvey*.

§. 7. A *Stomachic scorvey* is discerned, 1. By a pale Tallow habit of Body, white Spots like *Cacatrix's*, much lighter than the Skin, pale Pustles and Oedematous Tubercles, chiefly about the Stomach, Breast, Neck and Groin. 2. Oedematous Legs. 3. Laxe fungous pale ichorous Gums. 4. Fluent spitting. 5. Inflation

tion of the Stomach, heavy Digestion, sour Belchings, and discharging of Wind both ways. 6. Distension of the Belly; whereunto add some of the common signs.

§. 8. The marks of a *Splenetic Scorvey* are, 1. Livid luxuriant Gums, that are apt to be Fissured, Ulcered, grow putrid and stink, and at length through a Phagedanic Sanies are apt to be corroded away. 2. Blew livid Spots and Splotches, which by Deterioration turn black, and oft-times Ulcerate, and commonly haunt the left side of the Body more than the right. 3. Sour Belchings, Winds Murmuring and Fluctuating about the Guts between the Hypochonders, Stitches, Pricking, or Gravitating pains in the left side under the spurious Ribs, Melancholy passions, Palpitations, sudden Faintnesses, Vertigo's, Inflations and pains of the Stomach, which sometimes reach as far as the Back, in manner, imitating those of the stone in the Kidneys, also Vomitings, which in some is so continuous and permanent, that they scarce ever Eat or Drink

Drink without returning some part of it immediately, or after a short interval; and notwithstanding are obliged to Eat and Drink often, to suppress the gnawing pain of their Stomach, which is occasioned by a putrid *Acid Serum*, vellicating the Tunics of the Stomach, lying on the left side proves easiest to them, a livid blearing up of the under Eye-lids; a Hæmorrhage of the left Nostril, and many other Characters expressed in the general *Symptomatic*.

§. 9. An *Acid Scorvey* not differing from a *Stomachic*, a *Liminary*, and *Recent Scorvey*; a *Lixivial Scorvey* being oft comprehended under an *Hepatic*, and a *Saponary* under an *Inveterate* and *Terminatory Scorvey* (which Identifications are only to be understood *κατὰ μέρος*) are easily known by those Notes I have already promised, whereunto may be added for confirmation, the most certain sign desumed a *Juvantibus* and *Nocentibus*, viz. an *Acid Scorvey* yields to Alkalious Remedies, a *Lixivial* to a *Scorbutic Acid*, a *Saponary* to a mixt Remedy

medy. The Mouth, Leg, and Joint-*Scorvey*, needs no further Illustration for discovery, than what I have set down in their particular Chapters.

§. 10. A *Latent Scorvey* requires Experience and Industry in the Physician, who must take his Dimensions of Conjecture, 1. From the Air wherein the Patient Liveth. 2. Diet. 3. From such Symptoms, which cannot so Directly or Relatively be applied to any particular Disease besides this, as a Recurrent Lassitude, and sloath of Moving, dulness of the Senses, difficulty of Breath, pesanture of Body, inflation of the Stomach, heaviness and dulness after Meat, winds about the Guts, Coughs and Catarrhs frequently returning, besides several other Neutral symptoms, which do neither determine a man absolutely Well or Ill. Lastly, Observe that where two such Non-naturals, as a *Salin Air* and *Diet*, have so absolute an Influence on Bodies, scarce any Disease can seize on a man, which doth not partake of a *Scorbutic Tincture*, neither can it be well Cured, without ab-

abstracting a Coindication from the *Scorvey*.

§. II. A *Dutch Scorvey* in Symptoms is very different from the *English*; they using generally a Diet more Excrementitious than ours (as gross thick Beer, Roots, Cabbage, Salats, Milk, Roak-Flesh, Pickle-Herring, and other Fish) are more Exposed to all the supposed *Pathognomonics* and *Syndrome* of a *Mouth* and *Leg-Scorvey*, than we, who feed commonly on Meats of more Nutriture and less Excrementitious, and therefore are not so much Exposed to that general Catalogue of *Scorbutic Symptoms*, but most commonly to those that are Latent, (and Recited in the preceding Paragraphs) and some others more evident, as Spots, Blotches, Pustles, Cutambulous Pains, Gripping of the Guts, Vomiting and Gnawing Pains of the Stomach, Hypochondriac Winds and Vapours, Catarrhs, Coughs, also to those of the *Joint-Scorvey*.

CHAP. XVII.

Of the Causes of a *Terminatory-Scorvey*.

1. *The Cause of a scorbutic Dropsie.*
2. *That the Heart is the part primarily affected in a Convulsion, Palsie, and Apoplexy.*

§. 1. **T**HIS Chapter I have reserved for the *Ætiology* of a *Terminatory Scorvey*, in whose train the *Dropsie* being placed in the Front, shall Commence my Discourse on that. The ill success that attends the Vulgar Cure of an *Ascites*, or Water-Dropsie, by hot drying and Lixivial Medicines, as *Elycampane*, *Orris Roots*, *Cyperus*, *Calamus Aromaticus*, *Juniper*, *Salt of Worm-wood*, *Centaury*, and a Hundred more, is a plain Convictive, that the Cause is most erroneously assumed, to be a Refrigeration of the Liver, and it's Obstruction through Phlegmatic Humors. But on the other

ther hand, when we shall take into Consideration, that a *scorbutic Drop-sie* is easily, and certainly Cured, if attempted in time by mixt Remedies, (whereof *Spirit of Tartar*, of *Salt Marine*, single or composite, and such like *Acids*, are the *Basis*) besides the symptoms attendant signifying a Lixivial Original, is to me a clear Demonstration, that it proceeds from a Calcination of Choler in the Liver, which thence resulting into an *Alcalious Salt*, dissolves *per Deliquium*, and so becomes Qualified to Penetrate into the most intime pores of its *Parenchyma*, where it subverts its Temperament, and through its Absorbitive Exhausting faculty parches its substance, and Indues it with a *salin* dissolving Quality, whereby the whole Mass of *Chymus* is daily dissolved into a *Serum*. The Universal Current of Blood deriving hence an Absorbing and Exiccating faculty doth about the Stomachic Vessels so exsuge the Mouth of the stomach, that Hydropics are continually obliged to moisten it, by Ingurgitating large measures of Drink, whence the *Latex feri* doth so immen-

surably accrefce, that through its intumescence generally some Vessel or other about the *Abdomen*, and particularly about the *Mesentery*, doth burst, or at sometimes through the Acrimonious quality of the *salin Serum* the said Vessel is corroded through, among Physicians termed, a *διεργασίη*; for it's not possible, so great a quantity of Water, as is sometimes collected in the capacity of the *Abdomen*, should sweat through the pores (*per διεργασίαν*.) But this is certain, that oft in a Commencing *Dropfie*, or one that's *Recent*, and of no large Circumscription, the *Serum* may exstil through the Osculations of the Vessels (*per ἀναστομίαν*) and it is this kind of *Dropfie* is capable of an expedite Cure, whereas the other that depends on a *διεργασίη*, is for the greater part Incurable; for suppose, that the Extravasate *Serum* is all, or in a great measure drawn off by Hydragogous Purgatives, still the consolidation of the corroded Vessels is not only difficult of its own nature, but in a manner impossible, because of the daily praerfluxe and appulse of the corrosive

five *Salin Serum*, to the discontinued Orifices of the said Vessels; add hereunto the ineptitude of the salin constitution of the Liver and corroding *Alcalions Blood* to be sweetned, and reduced to their pristin Temperament. By the way, let me observe the Error of *Hofman* in his Institutes, attributing the causality of a *Dropsie*, to a Diminuted or Abolisht faculty of the Kidneys, not attracting the *Serum*, which is manifest, doth happen *per accidens*; because the *Serum* having taken another Channel, is deviated from its usual appulse to the *Emulgents*. But since I find my self for the præsent Imbarqued on this Subject, the Affinity of the Matter perswades me to Expatiate into some other sorts of *Dropsies*, that are not Scorbutique, namely such, as sometimes do happen to Women after their lying In, also to some upon a liberal draught of cold Water, and to others upon the continuance of a *skir* of the Spleen or Liver, or upon a tedious harassing of a *Tertian* or *Quartan*. In the first case there being a vast Coacervation of Humours in the *Hypogastric Vessels*,

by reason of the retention of the *Menstrua*, during the whole time of Child-bearing, which upon the pains of Labour attracting a greater Conflux thither, and the great heat of the adjacent parts rarefying the said Humours, occasion some of the *Lymphatic* Vessels to burst, whereunto being concomitant a copious Hemorrhage of the *Matrix*, causeth a vast expense of Spirits, whereby the Bowels do all suffer a subversion of their temperature, that afterwards proves an occasion of engendring crude aqueous Humours; these upon their circulating reversions distilling out of the foresaid bursted Vessel into the capacity of the *Abdomen*, produce a *Dropisie*. The like may happen upon a draught of cold Water, violently repelling the Humours to the Vessels of the *Abdomen*, which partly through the violence of the Impulse, and partly through their being crouded together, occasion a Rupture of some of the *Lymphæducts*. Here I must Animadvert further, how ridiculous a conceit it is of most Physicians, importing the said *Dropisie* to be caused by

by the sudden extinction of the innate or influent heat of the Liver, which afterwards doth engender Aqueous Blood; as if that entrail should be left so naked, or be so meanly fortified by Nature, as not to be capable, to resist the quality of cold Water at so great a distance; for certainly the cold is much broke and obtused by the Stomach, and other parts, before it can arrive to the Liver; or as if that cold quality, which is impressed upon the Liver, could not be easily remedied by hot Medicine: But what do I insist so long upon these Trifles, since the whole Body of Physick is filled with them? How a *Dropse* is engendered upon a *Skir*, *Tertian*, or *Quartan*, you may be inform'd from the Premises, wherefore I will return to Confirm the cause of a *Scorbutic Dropse* to be an Alcalised Blood, by the Calcination or Reverberation of the *Bilis*, which the Liver is alwayes furnished with throughout all its parts, to subtiliate and depurate the refluxent Blood, which being performed, the superfluous part of the said *Bilis* is abandoned to the *Cystis*. The

Symptoms concomitant and supervenient do strongly Corroborate that Sentiment.

1. The Insatiable Drought, the Atrophy of the Superior parts, the Lixivial ruddy Urin, torrid Tawny Complexion of Body, cancerous depascent Ulcers of the Legs, the salt Lixivial taste of the *Serum*, when Tapt out *Per paracentesin*; who but an insipid *Medicaster* can derive them from any other than an *Alkali*, or a reveberated *Bilis*?

§. 2. A *Convulsion*, *Palsie*, and *Apoplexy*, are the next particulars, that highly merit a serious deliberation, the more, because they ordinarily prove so dangerous and terminative. In the concept of their part primarily affected, seat, and internal Cause, I have for several years with the Generality of my Profession, attributing too much to the Dictates of Antiquity, sloathfully erred, until that by a stricter scrutiny and observation in practice I had detected their true Fountain and Original, which I now propose to you. That the Heart is the chief seat, and part primarily and
princi-

principally affected of the forementioned Diseases, appears 1. By the Pulsation of the Arteries, which before any *Convulsion*, *Palsie*, or *Apoplexy* doth seize on the Patient, doth very much vary from its Natural, in respect of Fortitude, Order, Frequency, Equality of Motion, and many other Specifications; which certainly express the heart primarily and principally affected; confer further with the 6. Arg. 2. By the Respiration, whose variation from its ordinary Function in several respects, præceding those recited affections, also signifie the same to be the part principally affected. 3. From the consideration of the Office and Function of the Heart, which, besides the Vivification and Irradiation of the whole, is, to be the sole and *Primum Mobile* of Motion of the Animal Spirits; for through the Pulsation of the Arteries about the Brain, and more especially about the *Plexus Choroides*, it causes Efforts, *Impetus*, and impulsive motions on the Animal Spirits; so that it is from those Impulses these receive their energy and vigor, and therefore consequently

ly the Heart being affected, those *Impulses* must also be depravated or diminished. 4. If at any time those Symptoms are abated or removed, it is by means of Cordials, which here for distinction, and the scope they are intended for (though improperly) may be termed Cephalic-Cordials, *Cephalico-Cardiaca*, as *Spirit of Castor*, *Ambler*, *Rosemary*, *Pyony*, &c. These undoubtedly are nothing more than Cordials, and rectifying the Blood, comforting the Vital Balsam and Spirits of the Heart, and reducing them to Ordination, a equality of Motion and Vigour. From ordinary Cordials they differ in this only, that consisting of a more durable and compact *Sulphur* and Spirits, they continue their Operation longer, in comforting the Heart, and oppugning the *Salts* of the Blood, by reason of the Compactness and Crassitude of their substance, whereas those that are vulgarly termed Cordials, and intended only to comfort the Spirits by assimilation, consist of a lighter, fusive, and exhalable substance; as *Spirit of Wine*, *Treacle-water*, *Aqua*
Mi-

Mirabilis, &c. 5. Observing, that in some Cases the foresaid Symptoms receive a considerable abatement and benefit from Phlebotomy, it is easily Demonstrable, that this is performed, by detracting some part of the burden, that oppressed the Heart, and its Pulsifick and Impulsive motions.

6. *Galen, lib. 2. de caus. puls. c. 12.* seems to intimate what is here asserted, in these words: *Pulsus convulsivus est, in quo ad utrumque terminum arteria tenditur, quem convulso sequi solet.* So that a convulsive Pulse (which signifieth the Heart to be affected primarily) doth precede a Convulsion, which following must be deemed a Symptom of the former. Touching the manner and difference of those three Symptoms, I conceive; that a *Convulsion* is occasioned by Irritation, a *Palsie* by Relaxation and Obtusion, and an *Apoplexy* by Dissolution. But to Illustrate it further; When the Arterial Blood consisting of an acrimonious pungitive Salt, and appealing to the lower part of the Brain (which is the most sensible, and near the *Principium Nervorum*) is agitated smartly by

by the vibration of the Arteries or hard and violent pulsations (for in all Convulsions *Pulsus sunt duri & tensi*) those subtiler particles of the Blood are adacted violently into the Pores of the tender parts of the Brain, which being thereby extremely discomposed, do violently impel the said pun-
gitive Particles into the Nerves (or in some cases only make a smart Impression of their *Idea* on the Animal Spirits contained in the Nerves) and being protruded to the Tendons of the Muscles, through their stimulating quality incite them to contract and distend themselves, to be freed or discharged of those aculeous Particles. Moreover, take notice, that the vulgar Explicatory of Convulsions, wherein the Nerves are declared to be primarily and chiefly convelled, which being continued to the Muscles, do likewise occasion their being convelled, is greatly Erroneous; for only the Tendons are subject to Convulsions, they being the chief instrument of the *Motus Spontaneus*, and only subject to a *Motus Depravatus*, and *Violentus*, whereas
the

the Nerves are not appointed to move or to be moved, but to convey the Spirits. Secondly, When a Nerve is punctured, or cut asunder (as hath oft happened by the Indexterity of Surgeons in Phlebotomy wounding the Nerve in the Arm in stead of the Vein) it's only apt to be surprized with a very great pain, but never known to be convelled. Wherefore I would not have my Reader judge the Dictates of the Ancients to be Infalible, since besides what is fore-mentioned, it's manifest in many of their Positions, which hitherto by this credulous Age are received for Truths: I shall only give you this Instance for Proof; The Causes of a *Cephalalgia*, or Head-Ache, is by them asserted to be Acrimonious, or distending Humors and Winds, corroding or distending the Membranes or *Meninges* of the Brain. Nothing is more false than this, or favours more of Ignorance in Anatomy; for neither of the *Meninges* are in the least sensible, as may be observed by the Probe, wherewith touching the *Dura meninx*, though roughly, (when lying bare upon the use of the Trepan) is not in the least perceived

ceived by the Patient. Secondly, Whence should the sense be derived, there being not any Nerve, or so much as a Nervous Fibre transmitted to it from the Brain. In *Summa*, in the Brain, Stomach, and Liver, though they are daily Dissected and Examined by Physicians in their expired Patients, many particulars are passed by, that have not been discovered until very lately, which is to be attributed to their Negligence and Unskilfulness; for indeed now a-dayes, if a Physician hath but once or twice dissected a Sheeps-head, or a Calves-pluck, he thinks himself sufficiently qualified to Challenge the Title of an expert Anatomist; thus we see, that an expert Anatomist of this kind, observing that one of the jaw Muscles of a Sheeps-head had two Bellies (whence its also called *Digastricus*) immediately concluded all Muscles to be *Biventres*; an able Head-piece for an Anatomist.

A *Palsie* is an imperfect *Apoplexy*, or a *Levis Apoplexia*, and differ only *gradu*, *secundum magis & minus*, and therefore do easily pass into one another,

ther, according to the Tenor of the
Doct. of Hipp.

Galen 3. de loc. affect. 10. further
tells you, That where all the Nerves
have at once lost their sense and moti-
on, that affection is called an Apo-
plexy, but that which only happens to
the right or left side is a Palsie.

The causes in general are twofold,
1. A Material. And, 2. A Formal
Cause. The former is a gross *Sapona-
ry Blood*, which through its thickness
is rendred incapable of being so sub-
tilized by the Brain, as to distil into
the Nerves, and that part that is Infi-
nuated into the Nerves, being too ob-
tuse and gross, to receive the Impul-
sive motions and *Impetus*, prove una-
ble to actuate or distend the Nerves
and Fibres, and therefore move the
Members very weakly, or not at all,
whence I term it a Relaxation in op-
position to the said distention. The
Formal Cause is the pulsfique faculty
of the Heart, which is rendred soft,
slow, and dull, and therefore Incapa-
ble to exercise it's Impulsive motions.
Moreover observe, that though the
Blood

Blood is Salin-Alcalious, it is not Acrimonious, because it is obtused by a mixture of gross Unctuous and Bituminous *Sulphur*, that obtuses its Acrimony; for otherwise were it Acrimonious, and purely Lixivial, it would prove Vellicating and Dolorous, and consequently Convulsive. The *Ætiology* of the other Terminatives may be easily deduced from the interspersed Discourses.

CHAP. XVIII.

Chronology of the Scorvey.

1. *In what place, and with what Concomitants the Scorvey first appeared, in what particulars its Symptoms increased.* 2. *A recital of several Primitive Authors that have wrote on the Scorvey.*

§. 1. **T**O whatever various Sentiments touching the first Rise and appearance of this Distemper, every particular Physicians Fancy

cy may lead him, I am certain by all the Indagation I could make among Physical Records, the name of *Scorvey* (what touching Identified Symptoms hath been discoursed among the Ancients, let that rest) is not mentioned in any Author prior to *Euritius Cordus*, by his *Botanology*, and *Olaus Magnus*, who in his *Hist. Gent. sept.* relates, There was a certain Campanie Disease, which did afflict those, that were Besieged and Closed in, and seemed to grow from eating of Salt Victuals, was increased through a cold Exhalation out of the Walls, and was called the *Scorboch*. But *Georg. Fabrit. Lib. 2. Annot.* in his History of the year 1486. saith, *This year was reigning a new and unheard of Disease in these Countries* (which were *Silesia, Bohemia*, and the parts adjacent) *which the Seamen of Saxony, called Den Scarbochk.* Whence I collect, this Disease had some few years before been Extant in *Saxony*, and *Denmark*, possibly in 1483, or 84. Moreover two things are observable, 1. That this Scorbutic Evil presently after its first Origination, was more

fierce, and Malignant, than the ensuing Twenty or Thirty years; for the said *Fabritius* in the account he gives of it, tells us, this Distemper tended immediately to Ulcers; which if not timely remedied, became Gangranous, and Mortal. The Second is, That there was an Interval of some years, before it spreaded into Countries, that were less Northern; for *Baldwinus Ronsseus*, who to me appears the first, that wrote on the *Scorvey*, è *Professo*, in his Treatise *de Magnis Hippocratis lienibus, plinique Stomacace*, or *Sceletyrbe, seu vulgo dicto Scorbuto*, printed at *Antwerp*, in the year 1564. doth express this Disease, was but newly arrived among them, and was so strange to them, that many scarce knew, what to make of it. *Guil. Lemnius*, a *Zelander*, wrote a Treatise on the same Subject a little while after. *Forestus* in his *Observ. Lib. 22. Obs. 20.* Writes, that the *Scorvey*, was not only formerly unknown, but many that were troubled with it, Died of it; likewise that one *Dorpius*, a Priest of *Lovain*, died of the said Disease many years since, the *Lovain*
Phy-

Physicians being extremely surprized at it, who had not yet determined any thing concerning it, being an Evil, that was yet new and unknown, and so was its Name, Effence, and much more the manner of Curing it.

Scorbutic Authors tell us, that *Westphalia* was pester'd with it next after *Denmark* and *Saxony*, in the year 1500. the next *Frizeland*, then *Flanders*, and *Brabant*, in 1556. where it was occasioned by eating of Rye, that was brought from *Prussia*, there being at that time a great scarcity of Wheat; afterwards *Holland*, and *Zeland*; in a manner, as if this Distemper had by Contagion crept from Country to Country. Many years it remained on that Coast, before we were sensible of it here in *England*; for there are many Physicians yet living, who in the former part of their Practice, had not so much as heard of the Name of this Disease, whereas within the last 20 or 30 years past, it's grown very familiar among us.

The next Author that wrote on the *Scorvey* after *Ronsaus*, was *Echtius*, whose *Epitome* of the *Scorvey* was

Printed a little after the said *Ronsseus*, next to him was *Wierus*, de *Scorb.* printed in 1567. next *Salomon Albertus*, whose History of the *Scorvey*, with the addition of a new Symptom then appearing, which was a contraction of the Cheeks, was published in 1594. *Hieron. Reusnerus*, his *Exercit.* on the *Scorvey*, in 1600. *Severinus Eugalenus* his Book of the *Scorvey*, in 1604. *Langius* his two Epistles on the *Scorvey*, in 1607, or 8. *Horstius* on the same Disease, in 1609. *Stubendorf* upon *Eugalen*, in 1614. *Dreyer*, *Brunner*, *Bruceus*, *Albinus*, *Smid*, *Sennert*, all Authors on the *Scorvey*, in 1622, 24, and 27. Besides these several others have *Obiter* and *Cursorily* touched on this Disease, as *Bauhinus*, *Dodonæus*, *Agricola*, *Carrichter*, *Dryander*, *Mithobius*, *Forestus*, *Rolfink*, *Barbet*, and Twenty more.

CHAP. XIX.

Of the Præfages of the several Degrees and Kinds of *Scorvey*.

1. *The Prognostic of a Preliminary Scorvey.* 2. *Of a Recent Scorvey:* 3. *Of an Hæreditary Scorvey.* 4. *Of a Contagious Scorvey.* 5. *Of an Endemic Scorvey.* 6. *Of a Stomachic, Hepatic, and Sple-
netic Scorvey.* 7. *Of an Acid, Lix-
ivial, and Saponary Scorvey.* 8. *Of
an Asthmatic, Rheumatic, Tormi-
nous, Emetic, and Diarrhæous Scor-
vey.* 9. *Of a Latent Scorvey.* 10. *Of
an English Scorvey.* 11. *Of a Mild
Scorvey.* 12. *Of Spots and Blot-
ches.* 13. *Of Ulcers.* 14. *Of
Spots and Blotches of an Ash-colour.*
15. *Of a Livid Palat.* 16. *Of a
Scorbutic Pulse.* 17. *Of an Epigi-
nomenal Scorvey.* 18. *A Progno-
stick applicable to Children.* 19. *Of
a Reverting Scorvey.* 20. *Of Ter-
minative Scorveys.*

§. 1. **T**He fore-knowledge of the Danger, various Mutations, Facility, or Difficulty of Cure of a Distemper, is so necessary, that a Physician can by no means be thought accomplisht, that is not well instructed in that particular, for which reason I shall Congest what Observations others and my self have made upon it, and recommend them to your reading.

A *Preliminary Scorvey*, if not well Distinguisht, and rightly Cured, may either be Transitory into a dangerous Malignant continual Fever, or a *Liminary Scorvey*, either of which may be prevented by a very facil Cure.

§. 2. A *Recent Scorvey* being neglected for six or eight Months, either by not making use of any means at all, or at least such as are in effectual, passeth into an *Inveterate Scorvey*, that generally proves very stubborn to Remedies; being in some Cured by a long continued Course, in others only palliable, so that its frequently returnable, either every Spring and Fall, or every

every Moon; in others it's absolutely Incurable.

§. 3. An *Hereditary, Connate, or Syntrophous Scorvey*, is Mitigable, but not intirely Curable.

§. 4. A *Contagious Scorvey* being only *Liminary, or Recent*, yields easier to Remedies, than one that is *Non-naturally adventitious*.

§. 5. A Distemper contracted by a Salin Air is not so obstinate, as one engendred by Dyæt, provided the Patient takes the advantage of changing the Air.

§. 6. A *Splenetique Scorvey* is worse than an *Hepatic*, and that also is worse than a *Stomachic*.

§. 7. An *Acid Scorvey* is more corrigible than a *Lixivial*, and that more than a *Saponary*, which fræquently proves Incurable. The measures of a *Mouth, Leg, and Joynt Scorvey* in general, are very consonant to the last præceding distinction.

§. 8. An *Asthmatic*, or *Syncopal Scorvey*, is attended with danger, and oft with a sudden death; a *Rheumatic* is tedious, and oft survened by a Fever; a *Torminous* is ordinarily very deplorable, and an *Emetic* distemper is of æqual danger with the former, and oft proves fatal. *Diarrheous* and *Lienteric Scorveys* are very Chronical, and fræquently Mortal. A *Flammous Hypochondriac*, an *Ulcerous*, and a *Dolorous Scorvey* are very difficultly conquered, or if at any time Cured, are easily returnable.

§. 9. A *Latent Scorvey* is easily or difficultly Cured, according to the length of time since it hath invaded the Body, and according to the quality of the Symptoms, and parts affected. In general, a *Latent* Distemper doth more easily admit of Cure in the beginning, than a manifest one; but in the Augment or State is far more difficult than the other, because there is no discharge of Scorbutic matter towards the Circumference, as in the other, and consequently the Spirits must be more oppressed,

§. 8. An *English Scorvey* is universally milder, and less refractory than a *Dutch Scorvey*.

§. 11. A *Mild Scorvey* may continue or be protracted to ten, twenty, or thirty years; a *Malignant* one doth sometimes terminate Life in two, six, or twelve Months, in some sooner, in others later; some arrive to their periods gradually, that is by a gradual decay of Spirits, and contabescency of Body; others die suddenly, and possibly when they least think of it.

§. 12. *Spots* and *Blotches*, the nearer they come to a black colour, the worse they are, and if they burst out into Ulcers, signifie a greater Malignity, and difficulty of Cure. It is observable, that in some before they Die, those *Blotches* do disappear by reverting into the Body, but soon after death appear again.

§. 13. *Ulcers* of the Legs are not easily chekt, but on the contrary if irritated, like Cancers indue a fiercer Nature, which fræquently inclines
to

§. 14. *Spots and Blotches* of an Ash colour, especially if Corroding and Itching, in some are never Cured. Cutaneous Tumours if apt to retrocede and burst out again, præstage a *Palsie*. A *Palsie* though Cured, leaveth a contraction of some of the Tendons, or a subjection to Convulsions behind it.

§. 15. In a *Mouth-Scorvey*, if the Palat and Throat turn Livid, that is Leadish, or Blackish, prognosticates Death to be at the door.

§. 16. A weak *Pulse*, and debility of Body in this Distemper are not alwayes dangerous, because that former may be occasioned by vapours and steems, and the latter by putrid *Acid Blood*. Neither are Convulsive Motions, that survene Scorbutique Fevors, of an æqual danger with those, that accompany other Distempers; for these soon cease, and their cause being Acrimonious steems, are in a short time dissipated.

§. 17.

§. 17. A *Scorvey* succeeding a *Quar-tan Ague*, or a continual Malignant Fever, proves for the greater part very Malignant, Obstinate, and in some Incurable.

§. 18. Children and Boys are most incident to the Kings-Evil, and Joint-Evil, young Men to the vagrant Gout, and old Men to the fixt nodous Gout. Boys and Girls are not so much exposed to the *Scorvey* as Men or Women; because the Constitution of the former is not so Salin, as the latter, and therefore when at any time they are surprized with it, are easier Curable. Old Men if Scorbutique, carry their Distemper commonly along with them to their Grave. A *Mouth-Scorvey* is more familiar among the younger sort, and a *Leg-Scorvey* among those that are past thirty.

§. 19. A Body that hath been once Cured of the *Scorvey*, if attacked the second, or third time, shall find the Cure to advance much more slowly than before.

Few Distempers of this kind are remedied without an exact Diet, though

though never so slight, and if they be any thing *Inveterate*, or *Terminatory*, the best Medicines without a Diæt avail nothing.

§. 20. *Terminative Seorveys*, though Curable, require a long continued strict course of Medicines; some are absolutely Incurable.

These Prognostics are to be understood absolutely considered, without the help of Remedies, which being præscribed according to the Rules of Art, dexterously præpared, and Methodically applied, are sufficiently impowred to frustrate the most of prædictions, alwayes that excepted, which implieth a Period determined by the Creator, whereunto this Trite Versicle hath its Reference :

Contra vim mortis, non est Medicamen in hortis.

CHAP. XX.

Of Præservatives against
the Scorvey.

1. *Præcepts relating to the Air.* 2. *Rules of Diet.* 3. *Præcepts referring to the rest of the Non-naturals.*

§. I. **I**T is not in a bare Speculation of the Nature, Causes, and Signs of Diseases, the Art of Medicines doth Acquiesce, but like other practical Sciences and Arts, designs its Theorems for Practice; wherefore since I have sufficiently laid down whatever appertaineth to the Theory of Scorbutique Infirmities, it's requisite I should now declare the Practique, which comprehends the *Prophylactique* and *Therapeutique*. The former being otherwise called the *Conservative*, in this case directs the means whereby to præserve a Healthy Body from the *Scorvey*, which consist chiefly

ly in Rules, and præcepts of making use of the six *Non-naturals*.

§. 1. Make choice of a thin serene perflated In-Land Air, and therefore shun the Sea-coasts, Bogs, Waterish, Stincking, and Close places.

§. 2. Let your Diæt be chiefly upon fresh *Meats*, that are Nutritive, of easie digesture, and not very Excrementitious; so that you must avoid all Victuals that are stale, stincking, salt, gross, obstructive, Excrementitious, and of hard digestion. Within the Verge of this Rule are meats, that have been kept too long, until they had acquired a *French Hangon*; likewise Pork, Brawn, and all sorts of Hog-meat, as Black-puddens, Sausages, Beef, Ducks, Geese, Tripe, Flower-Puddens; most sorts of fried Victuals, as Pancakes, Stakes, Eggs fried, Collops of Bacon, &c. Most sorts of Fish, Salats, all Souced, and Pickled *Meats*, &c. Which are all Scorbutique. Let your Drink be clear, well fermented, fresh, sweet, and temperate; not stale, or sour, ill tasted,



g
e
c
b
tasted, thick and muddy, heating, or cooling. Thus much for the quality; for quantity you must be moderate, in respect both of Eating and Drinking. Let your times of Meals be seasonable, seven in the morning, twelve at Noon, and seven at Night in the Summer, and in the Winter one Hour later. Your Breakfast and Supper ought to be light, and moderate, but your Dinner somewhat more solid and plentiful. Particularly avoid Coffee, new raw Cider, Brandy, and Tobacco.

6. 3. Sleep moderately, use Exercise, but not violently, keep your Body in order; that is between Loose and Bound; shift your Linnen once or twice a Week, to prevent the stoppage of your Pores by the Condensation of Sweat, and footy steams, that stick to your Shirt. What concerns the passions of the Mind, I will only recommend to you the Old præcept *Bene age & latere*, Do well and be chearful; and so here let us end this Chapter.

CHAP.

CHAP. XXI.

Of the Therapeutique in
the Scorvey.

1. *General Indications.* 2. *Indications taken from the Air, also from the quality of the Humours.* 3. *Indications abstracted from the quantity of the Humours.*

THE *Therapeutique* or Curative performs its part, by directing *Methodically* Remedies, contained in the *Pharmacentique* and *Chirurgique*.

§. I. The *Methodical* Directions do flow from the Indications, which are taken from two general Heads, *viz.* 1. From the Strength of the Body. And, 2. From the affections against Nature; from both which likewise Coindications and Counter-indications are desumed. Among the Affections against Nature, the Causes of a Disease, and in our Case of the

Scorv

Scorvey are the principal *Indicants*, next are the urgent Symptoms, and lastly the Disease it self.

§. 2. The *Salin Air* among the *Pro-catarctics* being the Ground and Original efficient, indicates its change into a better, which is such, as hath been described in the first Rule of the preceding Chapter; whose second Canon doth likewise contain Directions, that answers the Indication, desumed from a *Scorbutique Diat*, another grand Efficient; these two together with the rest of the Non-naturals being provided against in the same Chapter, we are to apply our selves to those Indications, which the Internal antecedent Causes do point at, viz.

1. A *Salin putrid*, or gross fuliginous coagulated acid Blood, indicates Remedies, virtuated to dulcify, attenuate, deparate the Humours of those sooty particles, and volatilize the *salin* parts, that are too much fixed. 2. A *salin lixivial thick chyme* requires Remedies, that by obtusing the fiery acrimonious Salts, may reduce it to an unctuous sweetness, or a *Pingue-dulce*, and
Q through

though their inciding property render it thin and fluid. 3. A Saponary constitution of the Blood doth assign Remedies, that obtain a power not only of allaying the alcalious qualities of the Salts, but also of depurating and volatilizing the incrassated Sulphurous Particles, that are fixt and imbodyed with the Alcalious Salts.

§. 3. In respect of their too much increased quantity, they seem to direct the Physician to Diminution or Substraction, which is accomplished by *Pharmaceutical* and *Chirurgical* means. The latter are, 1. *Phlebotomy*, for disburdening and depleting some part of the whole, which in Hepatic and Stomachic *Scorveys* is to be performed in the right Arm; in a Splenetic in the Left, and in a Pleuritic *scorvey* in the Arm of the same side. After a competent Interval, for derivation from, and easing of the part affected, a particular subtraction of Blood out of the *Hemorrhoid veins* by the application of Leeches is of great use in an Hepatic or Splenetic *scorvey*. In Women, especially if there be either a Total or partial suppression

pression of the *Menstrua*, the *Saphæna* ought to be opened. The measure of what quantity of Blood is requisite to be subducted, is to be taken from the degree of Plethory, Age, Sex, and other common Circumstances.

2. Fontanels or Issues, than which no means, whether *Chirurgical*, or *Pharmaceutical*, seem more advantageous and necessary, both for a præservative, and Curative. Touching the Place, where an Issue is most proper to be made; in a Splenetic *Scorvey* is in the inside of the Leg above the Knee, an Inch or two higher than the Gartering place; but here the *Surgeon* is to be very cautious, that in making the Incision, he doth not wound some of the Vessels, that pass just underneath, which is fræquently done if made too deep, and sometimes not without danger. In an Hepatic *Scorvey* the Right Leg is most proper, in a Stomachic either, it matters not. The *Mouth-Scorvey* indicates an Issue in the Left Arm, or in some cases in the Neck, or Right Arm, or in some very few on the Head, on the place of meeting of the *Sagittal* and *Coro-*

nary Suturs. In the *Leg-Scorvey* an Issue above the Knee is more rational. In the *Joint-Scorvey* more Fontanels than one are necessary, to be made in the Arm or Leg, and sometimes in the Neck also, according to the circumstances of the Disease.

Children that are Born of Scorbutic Parents, receive a great benefit from Issues, that are made in the Neck or Arm; but for prævention, that the Scorbutic stain wherewith some Child bearing Women are contaminated, shall be communicated to the Child in the Womb, nothing is of æqual force to an Issue in the Arm. The too much increased quantity of Scorbutic Humours indicating Pharmaceutical evacuations, is to be diminished, or abated by Laxatives or Eccoprotics, and Purgatives or Cathartics. The former are usually promised before Bleeding (where required) and Purgatives.

CHAP. XXII.

Of Antiscorbutic Laxatives.

1. *An excellent Preparation of Aloes.*
2. *A description of the Francfurt Pills.*
3. *Of Aloes Rosata, and Bontius his Pills of Tartar.*
4. *Of the Virtue of Aloetic Pills.*
5. *Two particulars to be observed in the Preparation of Aloes.*
6. *Some other Laxatives proper also in the Scorvey.*

§. I. **A**Loes is the chief Laxative, and indeed the *Basis* of most Purgative Pills; but in regard that it's offensive to the Stomach and Liver, and that by reason of its bitter Acrimonious Lixivial parts, it's of a nature so Colliquative, and Irritating, that it's apt to force the Blood out of its Vessels, and particularly to excite a *Tenesmus*, and Hemorrhoidal pains, necessarily requires such Correction and Preparation, as may render it not only

less hurtful, but also particularly appropriated to the Stomach. The preparation, which I have frequently Experienced, to excel all others, is this following.

Rx. *Aloes Succotr. gros. pul. 3 i.*
Flor. Ros. rub. 3 i. ls.
Spir. Sal. com. Gut. xl.
Spir. Vin. non rectif. ad.
Supereminent. iiii digit.
f. digest. in ciner. per hor. xii.
coletur & evapor. ad extr. consist.
cui adde Ol. Garyophyl. vel. Nuc.
Muscat. stillat. gut. xx.
Dos. a gr. xv. ad lx.

§.2. *The Francfurt Pills*, otherwise called *Pil. Angelica*, Invented by *Hartman Beyer*, have not only kept up their Reputation for many years, but to this day are accounted of great Virtue in *Germany* and *Holland* against *Scorbutic Distempers*, insomuch, that many Thousand Boxes of them are every Year dispersed to all Neighbouring, and some remote Countries also, so that they are found to be as stabil a Commodity to the *Francfurter Apothecaries*

thecharies, as *Treacle* to the *Venetians*, or *Confectio Alkermes* to those of *Monpelier*. The gain that hath been acquired by them, is the occasion their Preparation hath been kept so private, though at present is grown publick enough. The description I had of it at *Francfurt* is various, some preparing them one way, some another, though in the whole it comes much to one. The most received Preparation is that, which consists of an incomplete and complete Extract of *Aloes*. In manner following,

The incomplete Extract is.

℞. *Aloes Succotr.* ℥ ss.
Aq. Borrag. ℥ i ss.
Diger. per hor. xxiiii.
colatura fort. express.
evap. ad consistentiam.

The complete Extract is.

Materie inspissat. affund.
Suc. Card. Ben. ʒ vi. *aliis* ʒ viii.
Digerant. rursus per hor. vi. & *expressio* *evaporet. ad spissit. Extract.*
Q 4 ʒ. 3.

§. 3. In *Italy* the præparation of *Fabritius ab Aquapendente* was, and is still of æqual Fame with the former, and is nothing but *Aloes Rosata*, whereof the said *Fabritius* for many years together was wont to take every day a little before his Supper half a Scruple, for a præventive of Diseases and a prolongative of Life. *Leonard. Donatus* writ an entire Tract upon the Description, Virtues, and Use of *Aloes Rosata*, concluding the last Chapter with this Expression, That as the *Romans* anciently through Sobriety lived to the Age of Six Hundred Years, so he hoped to Live no less by the use of *Aloes Rosata*.

Bontius his *Pil. Tartar.* are also of excellent use for the same purpose, the Description whereof you have in *Scroders Pharmac.*

§. 4. It is among the Records of Experience, that *Aloetic Pills* are a most safe and effectual Præservative from the *Scorvey*, being at convenient times used once or twice a Week or oftner; they are likewise a great Præparative, that may be præmised before

fore a Curative Method of a *Recent*, and *Inveterate Scorvey*. They offer no violence to Nature, which the *Vulgar Mountebanks* Universal, or *Scorbutic Pills*, *Elixirs*, and pretended purgative *Cordials* do in so rude a measure, that many have and daily do purchase them with the loss of their Lives. Were I obliged to set down the Names of all those bold adventurous *Elixir-purchasers*, or *Pill-Chapmen*, that in one Year only are untimely posted away to their Graves by those *Deleterious Medicines*, it is not twice the Bulk of this *Treatise* would contain a space large enough for a Register.

How gently those *Aloetic Pills* cleanse the Stomach, the Guts, and Mesaraics of their *Drossy Mucilaginous* and *Tartareous Dregs*, and that without the least perturbation of Humours, alteration of Body, change of Countenance, impair of Strength, or any ill attendance, may be admired. That they gently remove *Obstructions*, excite an Appetite, and render the Body vigorous and prompt to Motion, is a most certain Truth.

§. 5. Two particulars are to be observed ; The one is in relation to their Preparation, *viz.* That they be prepared singly, without the admixture of those pretended correctives contained in the Composition of *Hiera Picra*, *Ruffi*, *Mastichin*, and such like ; for all that *Farrago* or Miscellany of *Asarum spic. croc. &c.* in the *Hiera* ; *Myrrhe*, and *Saffron* in the *Ruffi*, doth not only so much increase the Mole of a Dose, that in stead of two Pills of simple *Aloetics*, you are obliged to swallow down Eight or Nine, but it occasions also a Tumultuation and Ebullition, in the Stomach, and all the Vessels, inflames the Body, and sets all the Humours afloat.

The second is in relation to their proper Use and Exhibition, where you are to take notice, that they are only appropriated to an *Acid Scorvey*, being otherwise very præjudicial in a *Lixivial*, and *Saponary Scorvey*, also to all hot and dry Temperaments, lean and thin habits of Body, and such as are subject to *Hæmorrhages* of the Nose or *Hæmorrhoides*, or excessive *Menstrua*.

§. 6. The Laxatives proper in a Lixivial or Saponary Scorvey, are Polypody, Sem. Cartham. Epithym. Cassia, Manna, Tamarind. Prun. dam. Passul. Tartar. Rhen. Crud. Crem. Tartar. Syr. Ros. sol. Out of these may be composed Decoctions, or Bolus's; or in stead of them may be substituted Laxative Glysters.

CHAP. XXIII.

Of Scorbutique Purgatives.

1. The great virtues of Senna. 2. Of Agaric, and Mechoacan, also of Halo-cathartics, and Gum-cathartics. Of composite Medicines. 4. A Caution in Purging Scorbutic Bodies. 5. A Purgative Apozem. 6. A Cathartic Powder. 7. Antiscorbutic Pills. 8. A pleasant Purgative Ele-
ctuary.

§. 1. Chymical Practisers cannot with greater Truth affirm, that Antimony is capable to Cure all
Dis-

Diseases, then in the same sense I may confidently assert, that *Senna* before all others is the most noble, safe, and effectual Vegetable Purgative, whereby most Distempers depending upon a Cacochymy, may be perfectly removed, and especially those, that are Scorbutique.

§. 2. *Agaric* and *Mechoacan*, are the next Purgatives, that seem to be specifically appropriated to Scorbutic Cacochymies. Besides these, all *Hydragogal Cathartics* in general are experienced, to contain a peculiar faculty of Evacuating, and purging abounding vitiated *Acid Salts*, and among those *Syr. è Rham. Cath.* is præfer'd for a mild and safe *Halo-Cathartic*. Those of a more rude nature, and consequently more proper for Robust Bodies, and inveterate Diseases, are *Elater. Gut. Gamb. Gialap. Extr. Esul. Suc. iridis nostr. soldanel.*

Gum Cathartics in obstinate Cases are of admirable Virtues, but must be used in their due season; such are *Gum Ammoniac* especially, *Opopanax*, and *Sagapenum*.

§. 3. Thus much for the Simples, the Compositis are these following; but before I proceed upon them, let me recommend one Rule of Caution to you, That the less Compounded Medicines are, the more certain are their Effects, and less subject to disturb the Spirits: For a Medicine that consists of manifold Ingredients, though perchance it may perform the same Operation, will occasion a greater Perturbation, and with so much uncertainty, that you shall not know, to which of the Ingredients, the success is to be chiefly ascribed. Moreover, though for Ornament and the Dubiousness of the Distemper a Polypharmacal præscription may be allowed, yet in Scorbutique Maladies, where the Blood upon the least irritation is so apt to be exagitated, and moved into a tumultuous Ebullition or *ορυσμός*, it's incompatible.

§. 4. Secondly, Be mindful of this Remarque, that Scorbutics, because they are so much exposed to an Oppression, and Depauperation of Vital
and

and Animal Spirits, as appears by their low inæqual Pulses, the imbecility of their Joynts, and oppressed Respiration, cannot bear much Purging, especially by violent Cathartics, neither is there that Concoction (*πείρασις*) nor Separation (*διακρίσις*) of Humours, which are necessary before Evacuati-
ons; wherefore purge seldom, and that only with gentle Medicines, unless the Robust Constitution of the Body, or the Radication or Greatness of the Distemper should require it.

§. 5. The forms of Purgative Præscriptions, viz. of an *Apozem*.

Rx. Rad. Polypod. q. Helen. an. ʒ ss.
Fol. Agrimon. Asplen. an. M i. ss.
Sum. Absynth. P. i. Passul. m. ʒ. i
Fol. Sen. or m. ʒ vi. Agar. albis. ʒ i ss
Tartar. Rhenan. ʒ i. Zing. ʒ ij ss
Coq. in Aq. Fon. q. s. in Colat. ʒ i
dissolv. Syr. Ros. sol. ʒ i ss
M. f. Apoz. pro iii. dos. matut.

§. 6. Of a Powder.

Rx. *Crystall. Tartar.* ʒ ii.
Flor. Sal. Armon. chal. ʒ ss
Scammon. Sulphur. gr. vi. vel viii
M. f. Pul.
Capiend. in jussul. cochl. i. vel ii.

§. 7. Of Pills.

Rx. *Fol. sen. or.* ʒ ii.
Nitr. Tartar. ʒ i.
Resin. Scammon. ʒ i.
Ol. Garyophyl. gut. x.
Syr. e Rham. Cath. q. s.
M. f. Mass. Pill. *Dos.* ʒ i.

Others of great Virtue.

Rx. *Aloes præp. nost. vel Rosat.* ʒ ss.
Tartar. Vitriolat. ʒ i.
Resin. Gialap. gr. iii. vel v.
Ol. Garyophyl. gut. ii.
Syr. ros. Sol. q. s.
M. f. Pill. vii.
deurentur.

§. 8. Of an Electuary.

Rx. *Mechoacan. ras.* ʒ i.
Gialap. pulv. gr. xv.
Ol. Stil. Macis. gut. iiii.
Man. Calabr.
Pulp. Tamarind. an. ʒ ii.
Sy. Ros. sol. q. s.
 M. f. Elect.

This last præceding I have oft in a *Lixivial Scorvey* præscribed with success to those, whose Stomach could not bear an ill tasted Medicine.

CHAP. XXIII.

Of Antiscorbutic Alteratives.

1. *Antiscorbutic Alteratives.* 2. *Spagyric Antiscorbutics.* 3. *An Antiscorbutic Decoction of great Virtue.* 4. *An Antiscorbutic Liquor.* 5. *A Liquor by expression of Juices.* 6. *A Liquor by Infusion.* 7. *An Antiscorbutic Spirit.* 8. *A different process*

to

to abstract Antiscorbutic Spirits.

9. An Antiscorbutic Syrup. 10. A

different process of preparing the Elixir Proprietatis. 11. That Cro-

cus Martis as it is prepared by the Oxonian Author, is very hurtful in the Scorvey. 12. That Steel pow-

der in some cases, is poysonous.

13. That Vitriolum Martis is Astrin-

gent and not Ecphractic. 14. Tun-bridg Waters examined, and their true Principles discovered. How they ought to be used with Benefit.

15. Barnet and Epsom Waters Examined.

§. 1. **I**N an Acid Scorvey these following are estimated Specific Antiscorbutics, viz. *Cochlearia Hort.* Garden Scorvey-grass, being the chief of all the rest, the next is *Nasturtium aquaticum* Water-creffes, *Bercabunga* Brooklime, *Sedum minimum* Wall-peper, *A Armoracia* Horse-radish, *Persicaria* Arsmart, *Arum* wakerobin, *Semen sinapi* Mustard-seed, *Semen Erucæ* Rocket-seed, *Saponaria* Soopwort, *Che- lidonium majus* Selandine, *Guaiacum*, *Cortex Winterani*, the Flowers and Spi-

The Disease of London, or
 rits of *Sal Armoniac*, Spirit of Soot,
 and of *Harts-horn*.

§. 2. There are also other Simples, which though they are not Virtuated with so Specifique and Anticorbutic a faculty, yet by deobstructing and deterging the Bowels and Mesentery, and attenuating the gross Tartarous Blood, they are oft Experienced singularly to contribute to the Cure of Scorbutics, viz. *Rhaponticum verum*, *Helenium Elicampane*, *Iris Florent*. *Orris Gentiana*, *Centaurium minus*, *Absynth*. Wormwood, *Betonica* Betony, *Salvia* Sage, *Petasitis* Butter-burre, *Filix Fern*, *Chamadris* Germander, *Baccæ Juniperi*, *Sambuci* Elder, *Ebuli* Dwarf-Elder, *Satureia*. Hereunto may be added the common Splenetic Vegetables, as *Fumaria*, Fumitory, *Cort. Rad. Cappar* the Bark of Capper-Root, *Cort. Tamarisc*. *Cort. Fraxini* Bark of Ash, *Ceterach* Spleenwort, *Agrimonia*, &c.

The Hermetic Art recommends *Tinctur. tartari*, *Tinct. Antimon. tartar. Elix. Proprietat*.

The ordinary Chymical Salts, as
Sal

Sal Absynth. Cochlear. Card. Centaur.
by as much as they participate of the Nature of Common Salt, are absolutely hurtful. Among the Common Spices, *Pepper* is experienced to be of an Ebullititious nature, and very præjudicial to all Scorbutics, and therefore ought to be omitted in those Præscriptions the Learned *Oxonian* hath recommended to the Publick.

What concerns the forms of Compositions out of these forementioned Simples, it is to be remarqued, that Electuaries, Tablets, Powders, and Syrups also, unless prepared according to that or the like manner I shall propose below, are of little or no use, and are only interspersed by Authors among their forms for pomp, or to add to the Bulk of their Tracts; for it's the *Volatil Salt* is the sole energetic part of these Vegetables, which in the præparation of Conserves, and Syrups, and in reducing them into Powders for the use of Tablets, doth Evaporate; wherefore I shall only offer to you some few select Forms of Decoctions, Infusions, Distill'd Waters, Spirits, and Juices.

§. 3. The form of a Decoction of little Trouble, and less Charge, but of great Virtue.

Rx. Scob. Lign. Sanct. ʒ ii.

Lign. Sassafr. ʒ i.

Sal. Tartar. ʒ i.

Coq in Aq. font. lb iiii. ad consumpt. medietat. in Colat. infund. fol. Cochlear. hort. M. iiii. Beca-bung. M. ii. Absynth. M. ss. Cort. aurant. ʒ ii. Coletur & reservetur in Ampul. Vitr. Dos. ʒ iiii. ter per diem horis Medicis.

In the Winter when Herbs are scarce, I have frequently recommended this following with good Success.

Rx. Fol. Cochlear M iiii.

Chelidon. maj M ii.

Bac. Junip. ʒ i.

Contundantur in mort. marm. sensim affund. Vin. alb tenuior. lb i. exprimatur Liquor & reponatur in ampul. vitr. qui residendo clarescat. Dos. ʒ iiii. vel iiii. bis vel ter per diem.

§. 3.

§. 5. Of a Liquor by expreffion of Juices.

Rx. *Fol. Cochlear. succulent. q. l.*

Fol. Becabung.

Nasturt. aquat. an. part. med.

Contund. in mort. marm. pist. lign.

Liq. valide expreff. ℥ ii. adjician-

tur. Cort. Winteran. ʒ ss. Cort. ex-

ter. aurant. ʒ ii. Croc. Anglic ʒ ss.

in phiola probe obturata per hor 12.

digerantur calore leni, dein liq.

coletur & in vitr. reponatur. Dos.

ʒ iii. bis per diem.

§. 6. A Liquor by Infusion.

Rx. *Rad. Armorac. ʒ i.*

Rad. Gentian. ʒ ii.

Fol. Nasturt. aq. M ii.

Fol. chamæd. Saponar. an. M i.

Flor. Centaur. min. P i.

Rad. Zedoar. ʒ i

f. infus. per noct. in Aq. Sassafr.

odorif. Vin. alb. an. ℥ i. Coletr.

de colat. capiat. ʒ iii. vel iii. pro

Dosi.

§. 7. R. Rad. Helen. rec. ʒ ii.

Raphan. ʒ i ss.

Lign. Sassafr. ʒ. i.

Fol. Cochl. Cichor. an. M x.

Fol. Salv. Beton. an. M ii.

Sed. min. Persicar. an. M i.

Baccar. rec. Junip. Samb. an. ʒ ii.

Destillentur per vesic. cum refrigerio suspendendo in rostro alembic. eroc. anglic. in pet. ligat. ʒ i ss. capiāt ʒ iii. pro Dose.

§. 8. Spirits that are drawn by way of Fermentation do, besides the trouble and length of time required, suffer a considerable loss in their Volatil and Spirituous particles, which to evade, hath given me the occasion to find out a way, whereby the said Spirits are Extracted in a greater quantity with very little Trouble or Cost, and much exalted in their virtues. This following I have oft Distilled, which may serve for a form for all the rest of the said Antiscorbutique Vegetables.

R. Rad. Armorac. ʒ iii.

Lig. Sassafr. Cort. Win. Aur. an. ʒ ss.

Fol. Salviae M i.

Sym.

Sum. Absynth. vulg. P i.

Sal. Armoniac. ʒ ii.

Vin. alb. lb i. *contusa & concisa*
digerantur per hor. xxiiii. dein de-
still. per Alemb. vitr. in cujus cu-
curb. fuerit calc. Viv. lb ss. *Dof. a*
gut. xx. ad gut. xxxx.

§. 9. An Antiscorbutic Syrup.

Rx. Succ. rec. expr. Cochlear. ʒ viii.

Suc. Anagal. aquat. ʒ iii.

Suc. Betonic. Card. Ben. an. ʒ i.

Sacchar. alb. lb i. *depurando*

Coq. ad spissit. Syr. crass. cui fri-
gefact. affund. Spir. Cochlear. &
Anagal. Aq. prædicto modo simul
destil. ʒ i.

M. f. Syr.

§. 10. What relates to *Elixir Proprietatis*, præpared according to the process of *Crollius*, it's a Medicine beyond all Objections very proper against the *Scorvey*; but two Inconveniencies I apprehend in it, 1. By the immediate affusion of so great a proportion of Spirit of *Sulphur*, the other Ingredients are Adusted or Burned,

whence the *Elixir* afterwards contracts an Empyreumatick scent and taste.
 2. By reason of the Various Digestions and Distillations is consumed a great deal of time, attended with some needless Cost and Charge. Both these the College of Physicians of the *Hague* endeavoured to avoid, by directing the procedure in their *Pharmacopœa*, Fol. 106. in this manner,

Rx. Aloes puriss. Myr. Elect.

Croc. Anglic. an. ʒ i.

tritit ac vas vitreo angust. orific.

inditis, superaffunde

Spir. Vin. rect. lb i ss.

Ol. Sulphur. rect. 3 vi.

*Vase optime clauso f. digest. in VB.
 per dies quatuordecim; tindura ab-
 strahatur, quæ per decant. separata
 servetur usui.*

Although by this præscription they seem to have superated those two fore-mentioned Inconvenients; there is a third remaining, which renders it very Incommodious for Exhibition, namely, that upon the Instillation thereof into any Aqueous Liquor, it's apt to be præcipitated in the form of

a Mucilage, all which to avoid hath given me the occasion, to præpare the *Elixir Proprietatis* thus:

Rx. *Aloes Succotr. Myr. Elect. an. ʒ i.*
Sil. Mirin. bene exiccat. ʒ iii.
Distil. per retort. vitr. in aren.
oleo destill. affund. spir. vin. rect.
℥ i ss. spir. salis rect. ʒ i. addendo
Croc. angl. ʒ i. post digest. 4. dier.
in ciner. decant.

Vel.

Adjiciatur Croc. Angl. ʒ ss. & di-
ger. per dies 4. dein distil. in cu-
curbit. humil. appendendo extre-
mitat. rostri alembic. croc. odora-
tis. nodul. inclus. ʒ ss.

Guttule oleosæ supernatantes sepa-
rentur per tritor. & saccharo albis.
dissolut. addantur liquori distillato.

§. II. Medicines præpared of Steel have their particular uses, even in this sort of Scorvey, being designed to sweeten the Blood, by obtusing or alaying, and imbibing the putrid Acid Salts of the Blood; to this purpose the Learned *Oxonian* Author doth single

gle out from all other preparations that sort of *Crocus Martis*, which by a long continued Calcination is elevated into an *Acool*, and totally stripped of its Salin and Sulphurous particles, imagining that the foresaid *Crocus* through its drougthy natyry, doth *Appetere* and Absorb all Acrimonious Salts and Sulphurs of the Humours, as being Consentaneous to those it is now deprived of. This Mode of Reasoning is most certainly verified in the Nature and Effects of *Antimonium Diaphoreticum*, *Coral*, *Pearl*, &c. But nothing is more Erroneous, than the applying it to the *Ætiology* (as he may term it) of that kind of *Crocus Martis*; for abstract from it Vinegar, or any other *Acid*, by Destillation, and you shall Experience it, to come over every whit as *Acid*, as when it was Affused. Wherefore it ought to be abandoned from being used in any Distemper, excepting in some Loosnesses or Hæmorrhages, where and when Emplastics may be judged serviceable, and in those cases I have observed the Effects of *Terra damnata Vitriol. dulc.* far more ample, having oft præscribed it with Success.

§. 12. All præparations of *Steel*, that consist in the form of Powders, are attended with an unavoidable inconvenience, being apt through their weight to descend to the bottom of the Stomach, and sometimes to penetrate through the Pores of the inward Tunic, and there lodg between the Tunics, occasioning so great an oppression, that the Patient is rendred subject to almost Incurable Palpitations and Lipothymies; for the *Steel Powder* is only with the greatest difficulty, and sometimes never to be Expelled from between that Tunics; insomuch that under that notion it may be termed Synonymous with Venoms, against which the Magnet Stone powdered and exhibited Internally, is the only Antidote. Not many years since I dissected one that expired of a *Dysentery*, against which an *Apothecary* had for many dayes given two and three Drams of *Crocus Martis astring.* for a Dose; the same præparation that is so much Extoll'd by my Author. Upon the separating of the *Tunica Rugosa* from the middle Tunic, I detected a vast quantity of red sand, which
upon

upon Examination of what had been taken, I found was some of the *Crocus Martis* this skilful Glyster-pipe Doctor had given.

§. 13. Those that consider Salts to be dissoluble, præfer *Vitriolum Martis* before Chalybeat Powders, designing thereby to avoid the Permanence of the latter in the Body; but then are certainly Frustrated in their scope of reserating oppilations, there being nothing to prævalent in an Obstructive and Astrictive quality, as the foresaid *Vitriol of Steel*, which that you may give the greater credit to, this I do discover to you as a great Medicine for stenching Hæmorrhages, and it is by this sole præparation I have Cured a great number of Spitting of Blood, and several Women of immoderate Uterin Fluors, both Sanguinolent, and White. Wherefore it must be deemed an Error *Albo calculo notandus* in those, that prætend to imitate Diuretic Mineral Waters, such as the *savenier* at the *spaw*, and the Wells of *Tunbridg*, by dissolving of Chalybeat Vitriol in Spring-Water: But how great a Detriment this must
neces-

necessarily import, may be best understood from those, to whom they have been præscribed. Notwithstanding by means of another Method, Artificial Mineral Waters may be præpared so effectual and pleasant withall, that they shall in a great measure excel the Natural. By the advantage of these it is I have freed several from *Lixivial Scorveys*, that had proved obstinate to all other Methods.

Touching the use of Purgative Mineral Waters, *viz.* *Barnet, Epsom, Duledg, Chigwel, Stretham, Northall, &c.* To some Scorbutics they have proved Auxiliary, to others Hurtful.

§. 14. The Virtue of those Diurettique Mineral Waters is derived, from a permixture of some crude Elements of *Iron*, imperfectly Coagulated or Compounded into Particles, with Water sourcing near and washing through the *Matrices* of the said Crude imperfect ferruginous Elements; or to be more plain, the said Mineral Waters do consist of a dissolution of Vitriolat Salt, volatilized by the *sulphur* of *Iron*. From the *Vitriol* it is, the Water

ter is disposed to turn black upon the addition of *Galls*; from the Volatilizing *Sulphur* associating to it some of the Subtilest, Acid, Piercing, and Insinuating Particles of the Vitriol, it is, that they prove so excellent in driving down the Urin; and from the Exhalability of the said Volatil Salt or *Sulphur*, volatilizing the purest part of the fixt Salt, it is, they upon a very small interval loose their Diuretic Virtue, especially if violently shaken or moved, by being transported by Horse or Cart; though notwithstanding that, they will not lessen in their aptness of turning black by *Galls*, as long as they continue Imprægnated with the fixt Vitriolat Salt, which probably may be long enough; but in the *Interim* I would have you to escape that Error, many unpolisht Philosophers commit, in judging the said Water to continue vigorous in its Urinating quality, as long as it continues alterable by *Galls*. On the contrary, as soon as it hath suffered the loss of all its Volatil Salt, which is in very few dayes, it doth assume a binding obstructive quality, and that in so dangerous

gerous a manner, that some have died of it; for the Water remaining in their Bodies, and not being carried off, had suffocated the Vital flames of the Heart and Arteries.

Those that have made Observation on the number of such, that have been hurried out of the World both at the season of their drinking the Waters of *Tunbridge*, or soon after they had left them off, may very well conclude, either, that the said Waters were not proper for their Distemper, or that as too frequently happens, their Bodies were insufficiently præpared; for it is far from a proportionable præparative, to Exhibit only a Dose of Stomach Pills, or a little *Pulv. Senæ comp. maj.* but upon the use of a proper Purge or two some good Aperitive præparation of *Steel* ought likewise to be mixt with a Cathartique, and then they will Experience their Bodies to have been well præpared by the safe and successful use of the Waters upon it.

§. 15. The Waters of *Barnet*, *Epsom*, &c. are rendred Diuretic, Purgative,

gative, and sometimes Vomitive, through an Imbibition of some Immature principles of *Copper*, as appears on the tryal by *Lapis Calaminaris*, or *Sal Armoniac*. The Cathartique and Emetique Faculties issue from the *Sulphur of Venus*.

Among other numerous capricious Chalybeat preparations, I find no form so agreeable, and greatly successful, as the Tincture of *Steel*; but not when prepared after the usual slovenish Mode. Some sorts of Dulcifying Medicines in many Cases do wonderfully contribute to the Cure of an *Acid scorvey*, by obtusing the Acrimony of the Blood; such are most Testaceous Simples, as *Coral*, *Pearl*, *Crabs-Eyes*, *Crabs-Claws*; *Oyster*, *Muscel*, and *Egg-shells*; add to these *Antimonium Diaphoreticum*, *Bezoard. Mineral. Bezoard. Jovial. Magister. Jovis*, *Chalk*. &c.

CHAP. XXIV.

Of Specific Alteratives in
a *Lixivial* and *Saponary*
Scorvey.

1. *Antiscorbutic Simples of the first Order.*
2. *Simples of the second Order.*
3. *Simples of the third Order.*
4. *A Narrative of a Scorbutic Case.*
5. *Some other Antiscorbutics.*
6. *An account of another Scorbutic Case.*
7. *A third Scorbutic Case.*
8. *Some other Chymical Antiscorbutics, and a Description of the Author's Nitrum Tartarifatum.*
9. *The great Virtues of this Nitrum Tartarifatum.*

§. I. **T**He Simples that are indu-
ed either, 1. With a
Lentour or Mucilaginous moisture.
2. With an Acidity. Or, 3. With a
cooling detergent Faculty, are esteem-
ed very proper, and useful in an Al-
calious Scorbut. Through the first
S of

of these Qualities, they Lenify and Mitigate the Acrimonious Salts of the Humors; through the second, they Hebetate the corroding *Alkali*; and through the third, they move, attenuate and divel the *Pendulous* parts of the Blood, withall Clarifying or Depurating it from its Impurities.

1. Of the first Order. Are,

Borrage, Bugloss, Violets, Mallows, Marsh-mallows, the four greater Cold Seeds, *Jujubees, Sebestens, Corrents, Liquorish; Gum Arabic, Dragant, Milk* and in some Cases the *Milk Diet*.

2. Of the second Qualification. Are,

Acetosa Sorrel, Trifolium Acetosum Wood-sorrel, Oranges, Limons, Citrons, Cremor and Spiritus Tartari, Spiritus Diana, Spir. Sulphuris, Vitrioli, Salis com. nitri, Veneris Ex argine, Antimonii, Spir. acid. Guaiac. Juniper, Liquor Corallorum, Perlarum, Crystalli acide nitri, &c.

3. Of the third Ranck. Are,

Ligustrum Privet, Aparine Clivers, Che'ldonium minus Pilewort, Nummularia Money-wort.

4. These four are by Authors proclaimed

claimed Specifics in the *Scorvey*, the frequent Experience of their Use in some Scorbutiques confirming them to be such; but their Ignorance, through what manifest Virtue their Effects are performed (these being diametrically contrary to the other *Igneous Volatil* Specifics) renders them incapable of judging, to what sort of Distemper, in what manner, and at what time they ought to be applied. A while since, a Patient made her complaint to me of sharp running pains, flying up and down her Limbs, a pricking in her Gums, glowing of the Calves of her Legs, and sometimes of the Shins, a gnawing pain about her Ancles, especially upon much stirring, heats and pustles in her Face. She had made use of several Physicians, whose Opinion concluded her Distemper to be the *Scorvey*, and therefore had prescribed several Decoctions, and Infusions of *Scorvey-grass*, *Watercresses*, &c. Distill'd Waters, and Spirits of the like Ingredients, all which she found, had rendred her much worse, but some two Years before, confessed she had derived much be-

nefit from them, but now they extremely aggravated her Symptomes. This method of Cure I perceived depended on Indications, defumed from those pestilent principles of *Rancid* and *Pendulous*. The Error flowed from apprehending this an *Acid Scorvey*, which plainly appeared to be *Lixivial*. I præscribed her this Le-
pitive:

Rx. *Pulp. Caff.*

Tamarind. an. 3 ii.

Mechoacan. alb. raf. 3 fs.

Pulv. sen. comp. maj. 3 fs.

Crem. Tar. 3 i.

Syr. ros. sol. 3 ii.

M. f. Bol. ii.

Deaurentur.

Capiat mane cum custodia.

This Operated very gently and well, upon one days interval it was repeated. The fourth day she took this following Drink, and continued it three Weeks.

Rx. *Rad. Buglos. 3 i fs.*

Fol. Aparin.

Num.

Nummular. an. M. iiii.

Decoq. in Ser. lact. q. s. ad ℥ i fs.

In Colat. dissolv. Cryst. Tar. 3 i fs.

M. f. Apoz. pro 4 dos. mat. & vesp.

Once a Week she made use of the above written Bole. In the space of her whole Course of Physick, she was Blooded once in the Right Arm, and once at the *Hæmorrhoides*. The success of these Means restored her perfectly to her former Health, in less than a Month, which she hath enjoyed ever since. How easily is a Distemper Cured, whose Cause is rightly understood; whereas had this Woman adhered to the præscriptions of her pendulous Physicians, she would certainly have been among her Ancestors long ere this. Others I Cured of the same kind of *Scorvey* (*Præmissis Universalis*) chiefly by this following:

R. Rad. Sarsaparil. 3 iiii.

Rad. Chin. non carios. 3 i.

Rasur. Eboris 3 vi.

*Coq. in aq. font. ℥ vi. ad consumpt.
unius tertie, sub fin: coct. add.*

Rad. Cichor.

*The Disease of London, or**Scorzon. an. ʒ i ss.**Fol. Chelidon. min. M. vi.**Colaturæ affunde**Elix. Antimon. fulv. ʒ i. ss.**M.**Capiat ʒ iiii. ter per diem horis
Medicis,*

Note, that *Sarsa* and *China* are made use of in this Decoction, not for their Sudorifique faculty, but for a quality they are endued with of sweetning the Blood, by obtusing its Acrimonious Salts, through the Lentour, which their farinaceous substance contributes to the said Decoction.

5. To those four principal Antiscorbutic Vegetables may be added these following, *Scorzonera Hisp.* Vipers-Grass, *Clematis Daphnoides* Periwinkle, *Rhaponticum vulgare* Great Centaury, *Virga Aurea* Golden Rod, *Rumex acutus* Ditchdock, *Hispidula* Catsfoot, *Auricula muris* Mouseare, *Aquilegia* Columbine, *Rad. Graminis*, *Geranium Rupertianum* Herb Robert, *Pyrola* Sea-lavender, *Cichoreum* Succory, *Sempervivum majus* Housleek, &c.

6. The difference in qualities of these
Simples

Simples cannot escape your Advertency (though all agreeing in the same faculty, of oppugning *Lixivial* and *Saponary Scorveys*) some being temperate, som cold and moist, others cold and dry, and astringent; for which reason you may præsume, their use is limited to Diseases, though *Lixivial*, yet attended with particular Symptoms, so that they are not promiscuously to be applied. But because Practical Instances may serve you for a more clear Example, I will give my self that trouble, of setting down the Case of a Patient, who Repaired to me the last præceding Year; it was a great heat in the *Epigastrical* Region of the *Abdomen*, that chiefly incommoded him, which for the most part exercising its fury in a fixt place, that sometimes was at the bottom of the Stomach, sometimes a little lower (which must be in the *Pancreas*) and sometimes on the Left-side, where the *Spleen* resides; so that here was a *Lixivial* Scorbutic Humour, that from the *Spleen* was tossed to and fro to the Stomach, or sometimes to the *Pancreas* through the *Splenic* branch and *Vas*

Breve; the other Symptoms were a nidorulent crudity of the Stomach, a dejected Appetite, thick reddy spumous Urin, low inæqual Pulse, difficulty of Breathing, and purple Pustles erupting and retroceding in the Face. Those several eminent Physicians (that is eminent for a numerous Practice) subsequent to their Opinion, that it was the *Scorvey*, had for several Years treated him, with those common igneous Antiscorbutics, until his daily Experience of the prescribed Medicines discovered to him, it was to those unskilful Courses of Physick he must impute a great part of the growth of this Disease. His Body being very thin and exanguious counter-indicated Bleeding. The Crudities of his Stomach and Infarctions of the *Mesaraic* Vessels by *Lixivial* pendulous Blood required Lenitives, mixt with some gentle Cathartics.

Rx. *Elect. Linitiv. Man. Calab.*

Pulp. Tamarind. an. 3 ii ss.

Nitr. Tartar. nostr. gr. xxv.

Diss. in decoct. Prunor. dam. & sem. fen. 3 iii. M. f. Pot.

This

This he used twice a Week ; in his interval days took this following Drink for five Weeks, and was perfectly restored to his former Health ; but for confirmation of his Cure, I ordered him to drink the Waters at *Tunbridge* for one and twenty days.

Rx. *Rad. Tarax.* $\frac{3}{4}$ i.
 Fol. Chelidon. min. M iii.
 Semperviv. maj. M i.
 Glycyrr. ras. $\frac{3}{4}$ ss.
 Coq. in ser. lact. q. s. ad lb i.
 Coletur. & instil. Elix. Antiscorb.
 nostr. 3 ii.
 M. f. Apoz.
 Sine sacchar. vel Syr.

§. 7. To another Scorbutique, whose Palpitations and Lypothymies had rendred him very languid and weak, besides Purgatives and Bleeding at the Hæmorrhoides, præscribed this.

Rx. *Rad. Scorzon.*
 Vincetox. an. $\frac{3}{4}$ i.
 Fol Chelidon. min.
 Aparin. an. M ii.
 Virg. Aur. M i.

Hord.

*The Disease of London, or**Hord. Mund. P i.**Glycyrr. ras. ʒ i ss.**Coq. in Aq. font. q. s. ad lb i ss.**In Colat dissolu. nitr. Tartar. ʒ i.**℞ instil. tinct. mart. gut. xv.**M. f. Apoz.**Capiat ʒ iiii. ter per diem horis
Medicis.*

In case a Scorbutique of this kind is afflicted with a *Diarrhœa*, or *Dysentery*, you must make choice of *Ligustrum*, *Auricul. Muris*, or *Hispidula*; if *Dyssepulotic* Ulcers of the Legs be the prævailing Symptoms, præfer *Virg. Aur. Pyrola*, *Symphyt. Petr.* or *Bellis*.

It is this sort of *Scorvey* and its subdivisions (which hitherto hath not been observed by any) that occasions so many ambulative Patients, wandering from one Physician to another, among whom some are so ingenious to confess, they do not know what name to give the Distemper, or what to make of it.

§. 8. Besides these forementioned I have found a singular Virtue in *Steel drops*, præpared after my Mode; likewise

wife in an *Elixir Antiscorbuticum*, the Basis whereof is *Antimony* stripped of its venenous *Sulphur*, and rendred cooling, Diuretic, and a very high Munderifier of the Blood. Neither have I ever observed a Medicine in most Scorbutic Cases, to exceed the powerful faculties of my *Nitrum Tartarifatum*, the preparation whereof is, as followeth; but for your prævius information, you are to take notice, that in preparing *Antimonium Diaphoreticum*, I am used to add a triple proportion of *Salt Peter*, pulverised and sifted, to crude *Antimony*, likewise poudered and sifted; this being mixt together, I put by little Ladlesfuls into a Pipkin made Red hot in a Reverberating Fornace, covering the Pipkin upon every Injection of the said mixture; and having Injected all, I cover the Fornace with a great Tile, and let it Calcine, until the Coals be burned out. The Mass being yet warm I pouders, and put it into a large Bason, on which supposing the Mass to be a Pound in weight, I pour about a quart of warm Water, and stir it very well about, afterwards
let

let it stand four or five hours, that the Powder may settle on the bottom, decant the Water into an Evaporating body, affusing to it half a pint of distill'd Vinegar, evaporate it to a Pellicle, and set it in a Cellar or other cool place, and there let it continue three or four days to Crystalize; collect the Crystals, and evaporate the remaining Liquor again to a Pellicle, afterwards set it on Crystalizing, and so proceed, until all is passed into Crystals. Dissolve the Crystals into distilled Spring-water, strain it, Evaporate, and Crystalize it over again, until it prove very pure and transparent. What relates to the remaining *Calx* of *Antimony*, proceed to your ablutions, until the Powder be perfectly Edulcorated; it is not here I desist, but make a farther progress to a maturation, and protrusion of the essential or central *Sulphur*, and then I find it to be a Medicine, that deserves a singular Character in many Distempers.

§. 9. I ought not to recede from the præparation of *Nitrum Tartarifatum*, without giving a description of
its

its Dose and Virtues; from half a Scruple to two Scruples, it hath performed effects in the *Scorvey* and some other Chronical Distempers, which could never be expected from the *Ar-
canum Duplicatum*, *Tartarum Vitriolatum*, or such Hermaphroditic præparations, and Neutral Medicines; for besides its penetrative, incisive, detergent, and deoppilative Qualities, it doth retain a proportion of Antimonial Salt, Centrical Sulphur, and a true Idea of what ever excellent Faculties *Antimony* in its best præparation is enricht with, so that there is scarce any Impurity (whether Manifest or Latent) in the Blood or Bowels, that can escape its energy; But when you have made use of as many Ounces of this *Nitrum Tartarifatum* as I have, I doubt not but you will have cause to give the same Character of it I have here Expressed.

CHAP. XXV.

Of the Cure of a *Stomachic Acid Scorvey*.

1. *An Observation on the structure of the Stomach. That it is the Tunica Fungosa is the Seat and Matrix of many Chronical Diseases.*
2. *The Method of Curing a commencing Stomachic Scorvey. Antiscorbutic Pills. An Antiscorbutic Decoction.*
3. *Emetics and Gum Cathartics are most effectual Remedies in an inveterate Stomachic Scorvey. Gum - Pills.*
4. *Corroboratives proper after a Course of Purgatives.*
5. *Specifics against an Hepatic Scorvey.*

6. I. **I** Must necessarily premise one Observation touching the structure of the Stomach, before I can render the Indications plain and obvious. Its contexture doth consist in four Membranes. The first I call the *Tunica Mucosa*, or the slimy Coat, being destined by Nature for a defence of the nervous Tunic from those Acrimonious moistures,

moistures, the Stomach upon every digestion doth abound with. This Tunic if at any time it be abraded, occasions great Pains, Vellications, continual Singultitions, and enormous Vomiting. The second from those various Sulcations and Wrincklings may aptly be termed the *Tunica Rugosa*. This Tunic is very Nervous, and consequently indued with a most exquisite sensibility, derived from the Ramifications of the External branch of the sixth pair, and from the *Plexus sexti paris mesentericus*; the use of it is, to corrugate the Stomach, and to amplex the ingested Viſuals firmly and strictly. Both the forementioned Tunics late Authors have improperly named the *Crusta Carnosa*. The third I call the *Tunica Fungosa*, consisting of a lax spongy flesh, serving to give an ample space and passage for a large proportion of Arterial Blood, from whose præſence and præterflux in its Circulation, the Stomach doth receive a sufficient heat to dissolve, concoct, and elaborate its contents into a Chyle. Another great use is, that it is subservient in the nature of a *Concoctory*,
where

where the crude Blood circulating is to be Digested or Concocted into a sweeter and æqual Mass; so that you must make this Annotation, that it is here the gross, and phlegmatic crude Blood doth so frequently stagnate; whence that pesanture and load at the Stomach, which the Sick do so commonly make complaint of in most Distempers, is occasioned, and not from crude viscous Humours in the capacity of the Stomach, which Physicians, with the Ignorant vulgar, term a Cake of fleam; for were this a truth, a detergent *Aloetic Laxative* would at once scour the Stomach, and disburden it of those weighty Humours, or at least a Galiard Vomit cannot be supposed to fail in that Indication; but on the contrary we find, that in many Cases scarce a score of proper Purgers, or half that number of Emetics will accomplish the design; however this is not to be apprehended so strictly, but that some crude Humours may float, or through their tenacity adhere to the sides of the Stomach, and may be as conveniently removed thence by a detergent Laxative.

tive. It is in this Tunic, where many Distempers take their root, which generally proves of so difficult an eradication; but be not so facil, as to erre with the gross of Physicians, in imagining, that it is those thick mucilaginous humours, penetrating through the *Tunica Mucosa* and *Nervosa*, do lodge in the *Tunica fungosa*, and constitute the Cause of those durable pesantures of the Stomach; for the said Humours are nothing near proportioned in subtility to pass through the thick and compact bodies of the forementioned Membranes. The fourth Tunic is the common Tunic, derived from the *Peritonæum*.

§. 2. This sufficeth to inform you, that in a commencing *Stomachic Scorvey* nothing is more properly Indicated, that an *Aloetic Eccoproctic* præpared, as hath been proposed before, and repeated once, or twice, and sometimes thrice a Week, and in the Interval dayes a Detergent and Antiscorbutic decoction. Thus I have Cured several with these following præscriptions, being sometimes a little varied

to answer their several Temperaments, Ages, and other Circumstances.

Rx. *Aloes nost. præp.* 3 ii.

Cort. Winteran.

Nitr. Tartarisat. an. 3 fs.

Syr. Ros. sol. q. s.

N. f. Mass. Pil.

Equavis 3a. formentur Pil. No. ix. & deaurentur. capiat Pil. iiii. vesp. sub ingress. in lect. & Pil. v. sequent. aurora, superbibendo haust. liquor. sequent.

Rx. *Fol. Cochlear. hort.* M iiii.

Fol. Becabung. M ii.

Sum. Absynth. vulg. P i.

Flor. Centaur. 3 i fs.

Cort. Aurant. 3 ii.

Infund. in Aq. Cochl.

Vin. alb. an. lb i.

Expressio reponatur in ampul. vitr. sumat 3 iiii. ter per diem horis Medicis.

§. 3. From the clogging and burden of the *Tunica Fungosa* we are to desume this Indication, that a safe and well prepared Antimonial Vomit is par-

particularly pointed at, which through its most subtil *sulphur* doth penetrate in a very short space through the whole Body and every part of it, dissolve the most tenacious Humours, and by stimulating the Nervous Tunic of the Stomach doth dislodge, and throw off those obstinate adhærents; and among those numerous præparations, I could never yet find any more safe and effectual, than my *Antimon. Resuscitat.* the process whereof is described in my *Great Venus*. But where a Vomit is counter indicated by the unaptness and difficulty of evacuating that way, take your refuge to *Gum Cathartics*, which used for Eight, Ten, or Fourteen days, oft do wonders. The following Mass of Pills in cases of this nature I have several times præscribed, with a success suitable to the Excellency of its Ingredients.

Rx. *Aloes succotr.*

Gum. Ammon. an. 3 ii.

Solvantur in tinctur. gentian. q. s.
instillat. Spir. Vitriol. philos. gut. xx.
solutio coletur & evapor. ad mell-
gin. addendo deinceps.

T 2

Spec.

Spec. Diasen. 3 iii.

Sal. Chalyb. nostr. 3 ii.

Nitri. Tartar. 3 i fs.

Bezoard. Jovial. 3 ii fs.

Ol. Succin. gut. xv.

Elix. Proprietat. q. s.

M. f. Mass. Pilul.

Dof. a 3 i. ad 3 i.

§. 4. Since in Scorbutic Distempers, longer Courses than of a Fortnight or three Weeks, do not only occasion a *Fatigue*, but a weakness also to the Stomach, a confortative Electuary ought to be made use of for six or seven days, and then return to a repetition of the foregoing Course; for Chronical Diseases, especially Scorbutics, proving very obstinate, require fræquent reiterations of Medicines.

A Confortative Stomachic Electuary.

R. Conserv. Anth. Salv.

Absynth. pont. an. 3 i.

Pulv. Stom. ex aron. Quercet. 3 i.

Zedoar. Cort. Winter. an. 3 fs.

Elix. Proprietat. gut. xxx.

Syr. cort. citr. q. s.

M. f. Elect.

Capiat

Capiat quotidie ad magnitud. castan. duabus horis ante pastum.

§. 3. An *Hepatic Scorvey* is vigorously oppugned by these two specifics; *Aparine*, and *Chelidonium minus*. Most cooling vulnerary Vegetables do also very much conduce to the Cure of this Distemper; hereunto add *Agri-mony* and *Lapathum acutum*.

CHAP. XXVI.

Of the External Cure of the *Mouth-Scorvey*.

1. *The Description of a Mouth-Liquor.*
2. *A Liniment for the same use.*
3. *A Collution for the Mouth against Ulcers of the Gums.*

§. 1. **B**Y what means to act against the Internal root of an *Acid Scorvey*, hath been formerly declared; how to rescind this Branch, the *Mouth-Scorvey*, by extrinsic Remedies, is the purport of this Paragraph. The correcting and subduing

the putrid acour of the Blood, ap-
 pelling to the inward parts of the
 Mouth, and there occasioning a Va-
 cillation of the Teeth, painful, spon-
 gy, tumefied and discoloured Gums,
 I have more than once proved succes-
 ful in, by this following Liquor.

R. Fol. Cochlear. M viii.

Fol. Salv. P iii.

*Post contus. in mort. marm. expri-
 matur succus, in aq. dissolv. Alum.
 rrp. 3 i. Colcoth. Vitriol. 3 ii. repon-
 atur in vesic. snil. qua strict. clausa
 suspendatur in aq. tepid. donec Alum.
 & Vit. fuerint penitus solut. dein
 destil. e cucurb. humil in aren. resi-
 dentia denuo suspend. in vesic. &
 repetatur destil.*

*Linteo præscripto Liquore imbuto
 confricentur gingivæ bis vel ter per
 diem.*

This Liniment in some manner doth
 imitate the Virtues of the former.

R. Fol. Salv. sic. pulv. 3 i.

Rad. Tormentil. pulv. 3 ii.

Flor. sal. armon. chalyb. 3 ss.

Balanst.

Balanst. pulv. ʒ i.

Mel. Crud. q. s.

M. f. Liniment.

Quo sæpius inung. gingivæ.

§. 3. If by reason of a greater Acrimony and Putrefaction of Humours the Gums grow Ulcerous, nothing seems parallel to this Collution.

R. Lixiv. calc. viv. ʒ iii.

Tinct. gum. Lac. ʒ i. fs.

Elix. Proprietat. 3 fs.

Alum. Vjt. ʒ ii.

Colcoth. v. triol. ʒ i.

Mel. ros. ʒ i.

M. f. Collut. oris.

Qua sæpius gingivæ madefiant.

CHAP. XXVII.

Of the External Cure of the *Leg-Scorvey*.

1. Description of the Authors Lapis Salutis.
2. A Liniment against Ulcers of the Legs.
3. A Cicatrizing Powder.

T 4

§. 1. De-

§. 1. **D**Epascent and Dysepulotic Ulcers are those obstinate Symptoms, that require a particular regard, against which my *Lapis Salutis* hath been Experienced to be very pravalent.

Rx. *Vitriol. Rom.* ʒ iii.

Cerus.

Litharg. Arg.

Vitriol. Mart. an. ʒ ii.

Virid. aris. ʒ i.

Coq. in Acet. acr. ad supereminentiam duorum digit. semper agitando, donec acquirant consistent. luti, addita Bol. Armen. ʒ i. coq. ad duritiem lapidis. Hujus particula solvatur in Vin. rub. adstring. q. s. quo lotis ulceribus applicentur iisdem plumaceoli eo madefacti.

§. 2. In case the Ulcers be very foul, the following Liniment may serve for an excellent Deterger.

Rx. *Ol. Jovis Mercur.* ʒ i.

Mel. Rosat. ʒ vi.

M. f. Liniment.

3. *Scorbutic Ulcers* of the Legs, though exquisitely deterged and incarned to the Surface, nevertheless prove *Dyssepulotic*, or difficult to be acatrizied by common *Epu'otics*, whose defect is oft wonderfully supplied by the amalgamation of Lead, being subtilly pulverized, lavigated, and inspersed pretty thick on the said Ulcers, and covered with unarm'd plegets, or dry Lint.

In conclusion of this Chapter, I shall onely insert this *Caveat*, to forbear using any kind of Unctuous greasie Medicines, be they Emplasters, Unguents, Liniments, or Oyls, they being all of a putrefactive nature, especially in this sort of Ulcers.

What concerns Spots, Blotches, or Pustles, they do not require any particular applications, since they usually vanish with the rest of the internal symptoms, upon a due course of Medicines.

CHAP. XXVIII.

Of Cordials.

1. *Cordial Simples.* 2. *The form of a Cordial Julep.* 3. *Analeptics.*

§ 1. **T**HE Vital Faculty being commonly very languid in Scorbutic Distempers, indicates *Cordial Refectives*, and *Analeptic Corroboratives*. The former are chosen out of fragrant and spirituous Vegetables, viz. *Flor. Borrag. Buglos, Ros. Viol. Calendul. Summit. Melif. Ceras. Nigr. Mala Citrea, Scrpil. Citrat. Menth. and Flor. Aurant.* which latter in Virtue, Efficacy and Propriety, is a Specific Cordial in most Hypochondriac Maladies, by far exceeding all the fore-mentioned; and therefore cannot but wonder, that Physicians have of late years estranged themselves from the use of it: But in this as in many others I find some to be very mutable; sometimes Acids, and Coolers are to be præscribed in Fevers, otherwhiles they æsteem them per-

pernicious, and hot Volatils are only to be recommended; and so the like instability of Practice may be observed in several other Distempers; what principle this flows from, you may easily conjecture. To these may be added the less heating Aromatics, as *Mace, Nutmegs, Cinamon, &c.* likewise Wine, some vinous Composites, and some Alexipharmacs.

§. 2. Out of these several Compositions, may be prescribed this following, which hath been experienced not to be unpleasant, nor ineffectual.

R. *Aq. stillat. ceras. nigr. tot. citr.*
Serpil. citr. aurant. an. ʒ i ss.
Aq. Cinam. tenuior.
Vitæ Matth. an. ʒ i.
Suc. Kerm. ʒ i.
vel Confect. Alkerm. ʒ iii.
Syr. Melis. ʒ i ss.
Spir. Menth. ʒ i.
M. f. Jul.
Capiat. cochl. ii. vel iii.
urgente languore.

The Citron and Limon Thyme wa-
ter

ter I suppose to be Distilled upon a prævious digestion with half water and half small *French Wine*. *Aq. Mirabil.* I seldom make use of, because it's a Water, very unpleasant, and consisting of disproportioned Ingredients. You must manage your Election of the foresaid Cordials according to their proprieties against an *Acid*, or *Lixivial Scorvey*.

§. 3. The *Analeptic* Corroboratives are chiefly Broaths made of a Cock, Chicken, or Veal, with the addition of Barley, or a Crust of Bread, Cordial Flowers, and a small proportion of Mace.

CHAP. XXIX.

The Cures of a Scorbutic Atrophy, of the Gout, and of Convulsions.

A Scorbutic *Atrophy* is remedied by reducing the Blood to its natural temperament, whereby its rendred Nutrititious, and apt to repair the dissipated parts.

Goats

Goats Milk, wherein Antiscorbutics have been boil'd, is universally received for a great Remedy in this Case.

Likewise this following in a *Lixivial Atrophy*.

R. *Rad. Consolid.* ʒ i.

Fol. hepat. stellat. M iiii.

Fol. Chelidon. min. M ii.

Ligust. M i.

Flor. Borrag. P ii.

Decoct. limac. vit. & ped. vervec.
℥ iii. *post digest. quatuor horar. de-*
still. è cucurb. vitr. humil. in ci-
nerib. de quo capiat ʒ iiii. ter per
diem scilicet hora 8. II. & 4. po-
meridiana.

§.2. Against Scorbutic arthritic vagous pains, I find nothing æqual to my *Tinctura Chalybis*, and *Tinctur. Antimonii Fulva*, either or both being in proper Vehicles exhibited for 14, or 21. dayes.

This Observation I affirm is universal in this Climat, that all or most Arthritic pains both Vagous and Fixt are either Scorbutic or Venereal, that is depending on a Venereal impression or

Tin-

Tincture, which some former Malignant infection (though cured 10 or 20 years past) hath left; for all Varolous diseases leave a stain or impression on the parts, which is as little deleble as the mark of a Blast, or a *Cicatrix* of a Malignant Ulcer; for this reason these sorts of Gouts shall never be Curable, or indeed scarce palliable without Antiscorbutic or Antivenereal Specifics, or both mixt with Arthritic Medicines. Scorbutic Arthritic fixt pains I have oft removed by my *Spir. Arthritic.* extracted from the *Sulphur* of several Minerals. For an Anodine and Palliative Topic, against the said Joynt torments, I only apply a *Cinnaber Emplaster*, but not that recommended in my *Great Venus*.

§.3. Some Scorbutic Convulsions this following *Elixir* doth vigorously opugnate.

Rx. *Elix. præon. præp. cum Spir. acid. Succin.* ʒ ss.

Sal. Antimon. nostr. ʒ ii.

M.

Capiat. gut. xx. vel xxx. ter vel quater per diem in Decoct. antiscorb.

The

The Antispasmodics contained in the *London Dispensatory*, are chiefly these; *Ungula alcis*, *cranium humanum*, *viscum querc. Aq. Ceras. nigr. Liliior. convall. Flor. tilia*, *paralys. ruta*, *Aq. Pæonia compos. Spir. lavendula compos. Spir. & tinct. castorei. Spir. Lumbricor. Spir. Angelic. Aq. Petasit. compos. Syr. infus. Flor. pæon. item Syr. Pæon. compos. Syr. de beton. compos.* likewise *Ol. Succin. Spir. C. c. & Ol. Guaiac.*

I have known two ounces of *Aq. Gentian. compos.* to do wonders, in suddenly removing Convulsion fits in Men and Women.

The most proper form for Exhibition of the fore-mentioned Specifics against Convulsions is a Julep præscribed in this or the like manner.

Rx. *Aq. flor. til. rut. ceras. nigr. an. 3 i.*

Aq. Pæon. comp. 3 i ss.

Tinct. Castor. 3 i.

Rad. Pæon. p.

Castor. p.

Ungul. alc. ras. an 3 ss.

Syr. Pæon. comp. 3 i.

Ol. Succin. rect. gut. x.

M. f. Jul.

Capiat

*Capiat part. med. ante paroxysm.
Convulsiv. & alteram post parox.*

For a Topic nothing is comparable
to *Balsamum Succini*.

In some Scorbutic Convulsions an
Electuary may be proper to prævent
the Paroxysms, because it's not so soon
digested, but remains a good while
in the Stomach to disperse its Virtues
to the parts affected.

*Rx. Conserv. Flor. Pæon. m. herb.
paralys. anth. an. ʒ i.*

Rad. acor. condit.

Nuc. Moscat. cond. an. ʒ ss.

Confect. Mithridat. ʒ i ss.

Rad. Pæon. pulv.

Castor. pulv.

Ungul. alc. ras. an. ʒ ss.

Syr. de Pæon. comp. q. s.

Ol. Succin. rectif gut. xv.

M. f. Elect.

*Capiat ad magnit. castan. duabus
horis ante cibum.*

CHAP. XXX.

*Of Malignant Fevors, and
Small Pox.*

1. *The Cause of Malignant Fevors.*
2. *The Cause of the Small Pox.*
3. *The Cure of the Small Pox.*

§. I. **T**He Malignity that so oft is
Concomitant and Su-
pervenient to continual Fevors, con-
stantly almost Reigning in and about
London, seems chiefly to derive its
Original from the ill temperature of
the Air, which as hath been declared,
is Salin and Scorbutic. That this is
the principal Procatartic, is evident
from these two Reasons: 1. Because
Persons differing from one another in
the use of all the other *Non-naturals*,
are subject to be surprised by the same
Malignant Fevor, which consequently
must then solely be derived from the
Air, that only of all the *Non-naturals*
being the same, and common to all.
2. Because many of those, that have
the misfortune to fall Sick of a *Milig-*

V

nant

nant Fevor, have been most temperate and regular in their Diet, Motion, and Resting, Sleeping and Waking, Excretions and Retention, and Passions of the Mind; so that it must be the Air only, that lies imputable of this Malignant Effect; add hereto, that *English* Bodies when incident into Fevors in some other Climates, are not afflicted with those Malignant Symptoms. The causality through which a Salin Air produceth such Malignant febril Effects, is by disposing the Body to engender great measures of gross Fuliginous and very Acrimonious steems, which by reason of the constipation of the External pores, and of other Internal obstructions are repelled, and incorporated into the whole current of the Blood, kindle and inflame its Bituminous parts, whose flames are thereby rendred Malignant and venomous to the Spirits, which then prove the immediate Cause of those Malignant Symptoms. 3. By this means the Blood soon becomes Lixivially Salin, Saponary, and runs into a gross deliquious Oyl, as plainly appears, when occasionally tapt out by Phlebotomy.

Now

Now the great difficulty of reducing this unctuous saponary Blood to its former qualification, and freeing it from that gross Salin and i crimonious *Fuligo*, is the Cause, that renders *Malignant Fevors* so indomitable, and extremely pernicious. Upon this *Hypothesis*, which your strict Scrutiny and Observation in Practice will abundantly confirm, how Deleterious the ordinary Method of Curing the said Fevors, and how contrary those hot Cordials exhibited by spoonfuls prove, is easily discovered; for instead of moving Nature to sweat by an Incisive, Attenuating, and Volatilizing quality, and by Amortizing the Lixivial Salts, they render the said Salts more Lixivial and absorbing, and consequently dispose the Body not towards, but against Sweating. Neither are the Times or Seasons observed for exhibiting of Medicines, that are accordingly to be varied in quantity quality and other circumstances; a certain directory of all which can never be attain'd by Indications, desummed from that impertinently improved Notion of *Fermentation*, which

hath been the occasion of posting hundreds to the jaws of *Orcus*. What measures ought to be taken in point of Management and Cure of this Distemper, I have already proposed in my *Tractatus Theoret. & Pract. de Febris*; But in short, the necessary premisses not being omitted, I do repose a great confidence in an *Antifebril Elixir*, consisting of Ingredients of a mixt nature; and in *spir. cornu cervi* prepared in a peculiar manner.

§. 2. The *Small Pox* being in some kind not unlike the foregoing Distemper, I will only give my Sentiment, with Directions relating to the Cure, and then take leave. I cannot give Credit to the received Opinion, importing, that the Small is caused by some impurities, the *Fætus* contracted in the Womb, which afterwards Nature doth cast forth into those virulent Pustles: this among the rest is certainly a *Deliramentum Antiquitatis*; for considering that in *Guinee*, most parts of *Africa*, and almost throughout whole *Asia*, the Natives, or indeed the Strangers are never surprized
with

with the *Small Pox*, though their Impurities contracted in the Womb (if any after many years interval) cannot be supposed less than ours, we must conclude, that it is rather an *Endemic Disease*, peculiar to the *Northern Climes*, or rather a seasoning or alteration of the Nature of Man, arriving out of the *Microcosm* of his Mother into the *Macrocosm*, impressed by the rudeness and difference of temperature of the Air of *Northern Climes* from his primogenial Temperament, which needs no other Confirmation, than the Instance of those *Guineans*, *Indians*, and others, who soon upon their arrival into those Climes are attacked by the *Small Pox*, which I can term nothing but a Seasoning, in like manner, as *Northern Bodies* are seasoned with other Diseases of the Climate that transport themselves to *Virginia*, *Barbados*, or other parts of the *West*, or *East-Indies*. That some undergo this seasoning of the *Small Pox*, soon after they are crept out of the shell, others when they are grown up to riper years; and some not at all, being pravented by some Mortal Distemper,

per, is occasioned, through the strength of Nature, some Bodies are indued with above others (that undergo the fore-mentioned seasoning soon after their Birth) whereby they are rendred capable to resist the alterative impressions of the Air.

Since then it is so obvious, that the Air is the principal External efficient, you must necessarily apprehend, that where the Air is Salin and Scorbutic, the *Small Pox* proves much more Malignant, and frequently mortal, and that, by reason the Blood becomes Lixivial, Saponary, and Absorbing, which to dispose to a *Diaphoresis*, or Breathing, by those hot inflaming Cordials is in some as impossible, as to force Water out of a Flint; but on the contrary, the Salts of the Humors being rendred more Lixivial and Absorbing by them, they do not only through that absorbitive and drougthy Faculty exhaust and dry up the *Serum* of the Blood, but concentrate and retract, or draw in from the circumference those volutil fuliginous Salts, together with the External Salts engendred in the Air, which otherwise Nature is
striving

striving to cast forth; and hence it is, that Old Women and Nurses by giving only large measures of plain moistening posset Ale, very small Ale boyl'd, or thin Fig-drink, prove infinitely more successful, than many if not most of Physicians: But now I must tell you also, that some of the ingenious Practicers of the College of *London*, taking their measures from the event the management of Old Women doth procure, and the ill Exit that attends the advice of other Physicians, do abandon all those hot aduring *Species*, and distill'd Waters, and præscribe temperate Moistening Diaphoretic Decoctions, and distilled Waters, whereby they justly deserve the Character of most Experienced and Learned Physicians, scarce one in a very great Number stooping to the Conquest of his Distemper, and that by reason of their apt and exquisite præscriptions. In fine, there are no principles, either those of Dogmatic putrefaction, or that of Fermentation, which to me do so evidently expound the causality and reason of all those Symptoms and Changes, that so ordinarily

narilly happen in the *Small Pox*, and *Measels*, than the *Hypothesis* I have proposed; and what concerns the *Practical* Indications they are such, that in *Success* and happy Event, I am confident exceed all others.

§.3. The *Alexiterial* simples are *Rad. scorzon. hisp. Vincetox. fol. Galeg. Scabios. flor. Calend. sem. Aquileg. fruct. caric.* (in case of a *Loolness* or *Vomiting* *Rad. Bistort. and Tormentil.*) *aq. Card. Ben. Scabios. Malv.* the *Composites* are *Aq. Scord. compos. Diascord.* not that of *Fracast.* as it is set down in the *London Pharmacopœa* with the addition of *Pepper, Ginger, Cinamon, &c.* which must necessarily be very pernicious in this *Distemper*, *Spec. e chel. cancr. Diamarg. frig. Cardiac. Magistral.* and such like

The *Decoct. Lent.* though commend- ed almost in every Author, I am certain is not agreeable to this *Distemper* in our *Climat.* *Spir. Corn. Cerv.* particularly præpared, and *Elix. Antiseptil.* are æqual to any of the fore- mentioned.

This Treatise being swelled beyond my In- tention, am Obliged to omit particular Ob- servations, and Conclude.

FINIS.

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